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U.S. Department of Transportation

National Highway Traffic Safety Administration

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*** *** ***



TRANSPORTATION RESEARCH CENTER

Indiana University

ON-SITE AIR BAG FIRE INVESTIGATION

CASE NO. - 94-16
FLEET - PRIVATE VEHICLE
LOCATION - SELECTION, WISCONSIN
ACCIDENT DATE - 1994

Submitted By:

Senior Staff Associate

1994

Revised Submission:

1995

Contract Number:



Prepared for:

U.S. Department of Transportation National Highway Traffic Safety Administration National Center for Statistics and Analysis Washington, D.C. 20590

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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points be coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

| | | Technical Report Documentation Page 1. Recipiont's Carolog No. |
|---|--|--|
| 1. Report Ha. | 2. Government Accession No. | 3. Recipion 5 Caraley Inc. |
| TRC/IU Case No. 94-11 | · • | · |
| 4. Title and Subtitle | | 5. Report Date 1994 1995 |
| On-Site Air Bag Fire Inves | tigation | A STATE OF THE PROPERTY OF THE |
| Private Vehicle | | 6. Performing Organization Code |
| Location - Wis | consin | 8. Performing Organization Report No. |
| 7. Author(s) | | 8. Performing Organization Report No. |
| | | TRC/IU 94-16, Task 9411 |
| 9. Performing Organization Name and A Indiana University | Address | 10. Work Unit No. (TRAIS) |
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| Washington, D.C. 20590 | ics and Analysis | The special regions of |
| 15. Supplementary Motors | | |
| | nt investigation with a post-den | ployment air bag fire involving a 1995 |
| · · · · · · · · · · · · · · · · · · · | lan, with active 3-point belts an | · · · · · · · · · · · · · · · · · · · |
| 16. Abstract | | |
| This report covers an on-s | ite investigation of an air bag d | leployment crash, and post-deployment |
| air bag fire, that involved | a 1995 Plymouth Neon and a 19 | 86 Dodge Omni. The Neon was travel- |
| , , | | city roadway. The Omni was traveling |
| | | roadway. The front of the Neon (case |
| | | causing the case vehicle's driver and |
| · | | gs) to deploy. The case vehicle rotated |
| | ** | sideslapped vehicle #2 (right front), and |
| | - | pproximately 8.5 meters (~ 27.9 feet) |
| 1 | | · |
| · | _ | 0 degrees clockwise after impact, side- |
| stapped the case vehicle (le | ent rear), and came to rest near | the southeast corner of the intersection |

right-front passenger side supplemental restraints (air bags) to deploy. The case vehicle rotated approximately 50 degrees counterclockwise after impact, sideslapped vehicle #2 (right front), and came to rest in the intersection heading east-southeast approximately 8.5 meters (~ 27.9 feet) from initial impact. Vehicle #2 rotated approximately 30 degrees clockwise after impact, sideslapped the case vehicle (left rear), and came to rest near the southeast corner of the intersection heading east approximately 10.5 meters (~ 34.4 feet) from initial impact. Both the case vehicle driver (33 year-old male) and right-front passenger (8 year-old male) were also restrained by the available, active, three-point lap and shoulder belts. According to the driver, he sustained abrasions to his wrists and distal forearms. The right-front passenger sustained, according to his father and medical records, abrasions to his face. Vehicle #2's driver (18 year-old female) and right-front passenger (12 year-old male) were both restrained by the available, active, three-point lap and shoulder belts. The case vehicle driver sustained, according to her interview and medical records, a cervical strain and lacerated left shin. The right-front passenger was not injured.

| 17. Key Words Motor Vehicle Traffic Accie | dent | 18. Distribution Statement General Public | | |
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| Air Bag | Deployment | | | |
| Fire | Injury Severity | | | |
| | | | | |
| 19. Security Classif. (of this report) | 20. Security Class | sif. (of this page) | 21- No. of Pages | 22. Price |
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TRC/IU CASE NO. 94-16

FLEET - PRIVATE VEHICLE LOCATION WISCONSIN

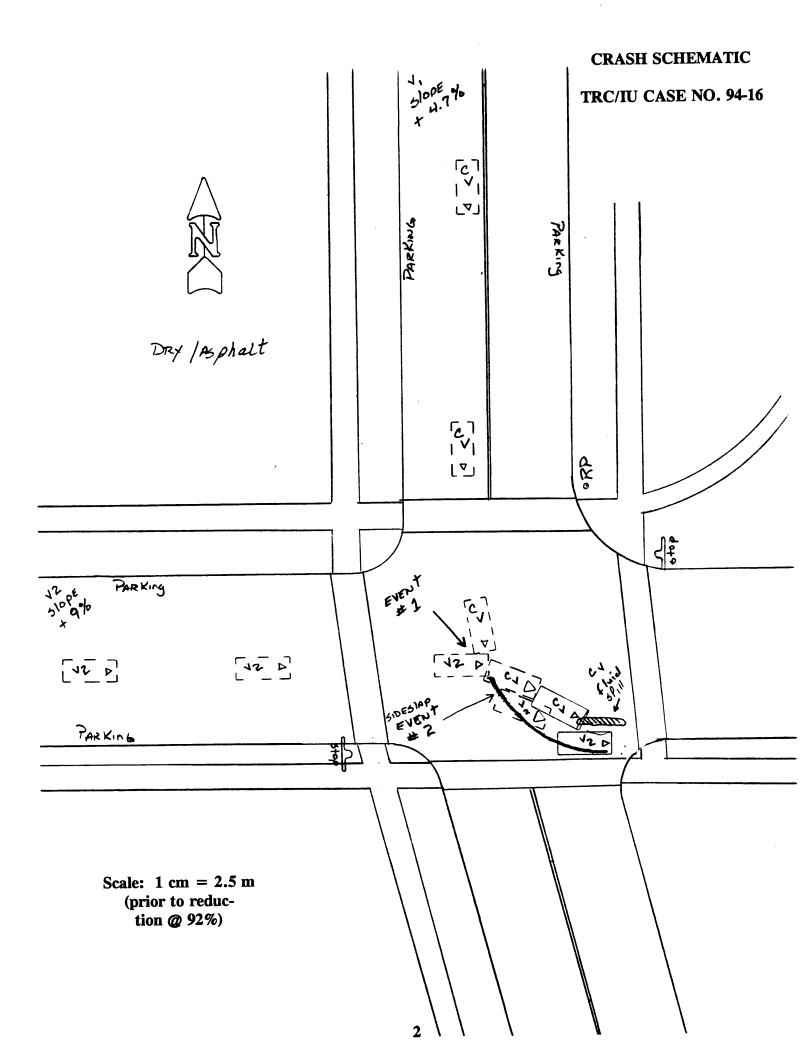
SUMMARY

This report concerns a motor vehicle crash involving an air bag equipped 1995 Plymouth Neon, four-door sedan, and a 1986 Dodge Omni, five-door hatchback, occurring on the second 1994 at the p.m., in Wisconsin on a city street. This crash is of special interest because the 1995 Plymouth Neon's right-front passenger supplemental restraint (air bag) caught fire post-deployment.

The Neon was traveling south in the southbound lane of a two-lane, undivided, city roadway when it impacted the Omni which was traveling east in the eastbound lane of a two-lane, undivided, city roadway. The Neon rotated approximately 50 degrees counterclockwise after impact, sideslapped the Omni, and came to rest in the intersection heading east-southeast approximately 8.5 meters (~ 27.9) feet) from initial impact. The Omni rotated approximately 30 degrees clockwise after impact, sideslapped the Neon, and came to rest near the southeast corner of the intersection heading east approximately 10.5 meters (~ 34.4 feet) from initial impact.

The front of the Neon impacted the left front of the Omni. Subsequently, the right front of the Neon sideslapped the left rear of the Omni. The CDCs were determined to be: 01-FDEW-1 and 03-RYHW-1 for the Neon and 10-LYEW-2 and 09-LZEW-1 for the Omni. The CRASHPC reconstruction program, damage only algorithm, was used on the highest severity impact to the Neon. The Total, Longitudinal, and Lateral Delta Vs are respectively: 16 k.p.h. (10 m.p.h.), -14 k.p.h. (-8 m.p.h.), and -8 k.p.h. (-5 m.p.h).

The 1995 Plymouth Neon was equipped with both driver and right-front passenger supplemental restraint systems (air bags) which deployed as a result of the frontal impact. The driver of the vehicle (33 year-old male) was also restrained by the available, active, three-point lap and shoulder belt. According to the driver, he sustained abrasions to his wrists and distal forearms. The right-front passenger (8 year-old male) in the Neon was also restrained by the available, active, three-point lap and shoulder belts. The right-front passenger sustained, according to his father and medical records, abrasions to his face. Both the driver and right-front passenger of the Neon were listed on the Police Accident Report as sustaining "C" (possible) injuries as a result of this crash. The driver (18 year-old female) and right-front passenger (12 year-old male) of the Omni were both restrained by the available, active, three-point lap and shoulder belts. The driver sustained, according to her interview and medical records, a cervical strain and lacerated left shin. According to the driver of the Omni, the right-front passenger was not injured. The driver of the Omni was listed on the Police Accident Report as sustaining a "C" (possible) injury; the right-front passenger was listed as not injured ("O").



TRC/IU CASE NO. 94-16

FLEET - PRIVATE VEHICLE LOCATION - WISCONSIN

ACCIDENT DATA

Location/Street: City Street

City/Township: Wisconsin

Area/Type: Urban, residential/recreational

Accident Date/Time: 1994, @ 19

Investigating Police Agency: Police Department

Accident Type: Car / Car - right angle

Occupant Injury Severity

(air bag vehicle): Facial Abrasions (AIS-1)

AMBIENT CONDITIONS

Light Conditions: Daylight

Weather Condition: Clear

Precipitation: None

Road Surface: Dry

ROADWAY

| | Case Vehicle | Vehicle #2 |
|-------------------------|--|--|
| Location: | City street | City street |
| Number of Travel Lanes: | 2-lanes, undivided | 2-lanes, undivided |
| Width: | 12.1 m (39.7 ft) | 12.1 m (39.7 ft) |
| Surface Type: | Asphalt | Asphalt |
| Median: | None | None |
| Shoulders: | None, curbs and parking lanes on east and west sides | None, curbs and parking lanes on north and south sides |
| Vertical alignment: | Straight on north leg | Straight |

ROADWAY (CONTINUED)

Vehicle #2 Case Vehicle

Grade, 9.0 % negative Grade, 4.7 % negative Horizontal alignment:

to east to south

Estimated Coefficient of

0.60 (Estimated) 0.60 (Estimated) Friction:

Unknown Unknown Traffic Density:

TRAFFIC CONTROLS

Case Vehicle Vehicle #2

None None Signals:

Regulatory sign: STOP None Signs:

Double solid yellow None **Markings:**

center lines

40 k.p.h. (25 m.p.h.) 40 k.p.h. (25 m.p.h.) **Speed Limit:**

VEHICLES

Transmission:

Vehicle #2 Case Vehicle

1986 1995 Year:

Dodge Plymouth Make:

Neon **Omni** Model:

5-door hatchback 4-door sedan **Body Type:**

1B3BZ48C9GD-----1P3ES47C5SD-----V.I.N.

Blue, light Blue, dark Color:

150,245 km (93,358 7,942 km (4,935 miles) Mileage: miles)

2.2 liters, transverse 2.0 liters, in-line, 4 **Engine:** mounted, 4 cylinders cylinders

4-speed manual 5-speed manual

Manual, worm and gear Power-assisted, rack-

Steering: and-pinion

Power-assisted, front Power-assisted, front **Brakes:** ventilated disc, rear disc, rear drum

VEHICLES (CONTINUED)

| | Case Vehicle | Vehicle #2 | |
|---|--|--|--|
| Padding: | Steering wheel and hub, sunvisors, dash, "A"-pillars, side door surfaces | Steering wheel, dash, sunvisors, A"-pillars, side door surfaces | |
| Active Restraints: | 3-point, manual, lap and shoulder belts in front and rear outboard seating positions; lap belt only at rear center position | 3-point, manual, lap and shoulder belts in front outboard seating positions; lap belt only at rear right, left, and center positions | |
| Passive Restraints: | Factory installed driver and right front passen- ger supplemental re- straint systems (air bags) | None | |
| Defects: | None | None | |
| Fleet: | Private vehicle | Private vehicle | |
| Tow status: | Towed due to damage | Towed due to damage | |
| VEHICLE DAMAGE | | | |
| | | | |
| EXTERIOR | Case Vehicle | Vehicle #2 | |
| EXTERIOR Deployment Impact | Case Vehicle | Vehicle #2 | |
| | Case Vehicle One | Vehicle #2 One | |
| Deployment Impact | | | |
| Deployment Impact Event number: Object Struck: Damage location Damaged Plane: | One | One | |
| Deployment Impact Event number: Object Struck: Damage location | One Vehicle #2 | One Case vehicle Left Between beltline and sill | |
| Deployment Impact Event number: Object Struck: Damage location Damaged Plane: Vertical Location | One Vehicle #2 Front | One Case vehicle Left Between beltline and sill 3 centimeters rearward | |
| Deployment Impact Event number: Object Struck: Damage location Damaged Plane: Vertical Location On Plane: | One Vehicle #2 Front Bumper and above | One Case vehicle Left Between beltline and sill 3 centimeters rearward of left bumper corner 123 cm (48.4 in) | |
| Deployment Impact Event number: Object Struck: Damage location Damaged Plane: Vertical Location On Plane: Direct Begins: Length Direct: Field L: | One Vehicle #2 Front Bumper and above At right bumper corner 110 cm (43.3 in) 138 cm (54.3 in) | One Case vehicle Left Between beltline and sill 3 centimeters rearward of left bumper corner 123 cm (48.4 in) 180 cm (70.9 in) | |
| Deployment Impact Event number: Object Struck: Damage location Damaged Plane: Vertical Location On Plane: Direct Begins: Length Direct: Field L: C ₁ : | One Vehicle #2 Front Bumper and above At right bumper corner 110 cm (43.3 in) 138 cm (54.3 in) 2 cm (0.8 in) | One Case vehicle Left Between beltline and sill 3 centimeters rearward of left bumper corner 123 cm (48.4 in) 180 cm (70.9 in) 0 cm (0.0 in) | |
| Deployment Impact Event number: Object Struck: Damage location Damaged Plane: Vertical Location On Plane: Direct Begins: Length Direct: Field L: C ₁ : | One Vehicle #2 Front Bumper and above At right bumper corner 110 cm (43.3 in) 138 cm (54.3 in) 2 cm (0.8 in) 1 cm (0.4 in) | Case vehicle Left Between beltline and sill 3 centimeters rearward of left bumper corner 123 cm (48.4 in) 180 cm (70.9 in) 0 cm (0.0 in) 8 cm (3.1 in) | |
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| Deployment Impact Event number: Object Struck: Damage location Damaged Plane: Vertical Location On Plane: Direct Begins: Length Direct: Field L: C ₁ : C ₂ : C ₃ : C ₄ : C ₅ : C ₆ : | One Vehicle #2 Front Bumper and above At right bumper corner 110 cm (43.3 in) 138 cm (54.3 in) 2 cm (0.8 in) 1 cm (0.4 in) 3 cm (1.2 in) 4 cm (1.6 in) 5 cm (2.0 in) 10 cm (3.9 in) | Case vehicle Left Between beltline and sill 3 centimeters rearward of left bumper corner 123 cm (48.4 in) 180 cm (70.9 in) 0 cm (0.0 in) 8 cm (3.1 in) 22 cm (8.7 in) 10 cm (3.9 in) 8 cm (3.1 in) 2 cm (0.8 in) | |
| Deployment Impact Event number: Object Struck: Damage location Damaged Plane: Vertical Location On Plane: Direct Begins: Length Direct: Field L: C ₁ : C ₂ : C ₃ : C ₄ : C ₅ : | One Vehicle #2 Front Bumper and above At right bumper corner 110 cm (43.3 in) 138 cm (54.3 in) 2 cm (0.8 in) 1 cm (0.4 in) 3 cm (1.2 in) 4 cm (1.6 in) 5 cm (2.0 in) | Case vehicle Left Between beltline and sill 3 centimeters rearward of left bumper corner 123 cm (48.4 in) 180 cm (70.9 in) 0 cm (0.0 in) 8 cm (3.1 in) 22 cm (8.7 in) 10 cm (3.9 in) 8 cm (3.1 in) | |

VEHICLE DAMAGE (CONTINUED)

| EXTERIOR (Continued) | Case Vehicle | Vehicle #2 |
|--|---|--|
| Deployment Impact (Continued) | | |
| Location: | C ₆ | C ₃ |
| CDC: | 01-FDEW-1 | 10-LYEW-2 |
| Damaged Components: | Bumper, grille, hood, right and left front head light and turn signal assemblies | Left front: fender, wheel assembly, and door; and windshield |
| Nondeployment Impact | | |
| Event number: | Two | Two |
| Object Struck: | Vehicle #2 | Case vehicle |
| Damage location Damaged Plane: Vertical Location | Right | Left |
| On Plane: | Between right outside rearview mirror to mid-door level | Mid-door level; between beltline and sill |
| Direct Begins: | 22 centimeters rearward of right front axle; 12 centimeters forward of right front axle | 5 centimeters forward of left rear axle |
| Length Direct: | 75 cm (29.5 in) 16 cm (6.3 in) | 63 cm (24.8 in) |
| Field L: | 77 cm (30.3 in) 26 cm (10.2 in) | 63 cm (24.8 in) |
| C ₁ : C ₂ : | Not applicable Not applicable | Not applicable Not applicable |
| C ₃ : | Not applicable | Not applicable |
| C₄: | Not applicable | Not applicable |
| C ₅ : | Not applicable | Not applicable |
| C ^e : · | Not applicable | Not applicable |
| D: | Unknown | Unknown |
| Maximum Crush: | 2 cm (0.8 in) | 2 cm (0.8 in) |
| Location: | Right front fender | Left rear wheel well flange |
| CDC: | 03-RYHW-1 | 09-LZEW-1 |
| Damaged Components: | Right front fender and door and right outside rearview mirror | Left rear quarter panel |

VEHICLE DAMAGE (CONTINUED)

INTERIOR Case Vehicle Vehicle #2

Damaged Components: Steering wheel air bag module and right dash Left dash, kickpanel, and "A"-pillar from

from air bag intrusion

Other Evidence of Occupant Contact: None

: None Crack left dash

Manual Restraint
System Failures:
None
None

Seat Performance

Failures: None Bent toward left

<u>REPAIR</u>

Cost Estimate: \$7,375.74 {repair estimate} Totalled, ~ \$1,150 {current retail value}

VEHICLE VELOCITY ESTIMATES

Highest Delta "V" Case Vehicle Vehicle #2

Reconstruction Program: CRASH3PC, SMASH, CRASH3PC, SMASH,

and EDCRASH and EDCRASH

Program Algorithm: Damage only Damage

Travel Speed: 48 k.p.h. (30 m.p.h.) 24 k.p.h. (15 m.p.h.)

Total Delta "V": 16 k.p.h. (10 m.p.h.) 17 k.p.h. (10 m.p.h.)

Longitudinal Delta "V": -14 k.p.h. (-8 m.p.h.) -6 k.p.h. (-4 m.p.h.)

Lateral Delta "V": -8 k.p.h. (-5 m.p.h.) 16 k.p.h. (10 m.p.h.)

COLLISION SEQUENCE

Pre-Crash:

The case vehicle (Neon) was traveling south in the southbound lane of a two-lane, undivided, city street and was attempting to continue in a south-southeast direction of travel. Vehicle #2 (Omni) which was traveling east in the eastbound lane of a two-lane, undivided, city street and was attempting to continue its eastward direction of travel. According to the driver of the case vehicle, he had no time to made any pre-crash avoidance maneuvers.

^{*} According to the driver of vehicle #2, the case vehicle left 2.4 meters (8 feet) of pre-impact skid marks. The Police Accident Report makes no mention of pre-impact activity, and no evidence of pre-impact braking was found during the scene inspection.

COLLISION SEQUENCE (CONTINUED)

Pre-Crash: (Continued)

The case vehicle continued straight ahead in its south-southeast direction of travel prior to impact. The driver of vehicle #2 made no pre-crash avoidance maneuvers. Vehicle #2 continued straight ahead prior to impact. The accident occurred in the four-leg cross intersection of the two roadways.

Crash:

According to both the scene and vehicle inspections and the Police Accident Report, the front of the case vehicle impacted the left front of vehicle #2 causing both the driver and right-front passenger side supplemental restraint systems (air bags) to deploy. Subsequently, according to the vehicle inspections, the right front of the case vehicle sideslapped the left rear of vehicle #2. According to the scene inspection and the Police Accident Report, the case vehicle rotated approximately 50 degrees counterclockwise after the initial impact and came to rest in the intersection heading east-southeast approximately 8.5 meters (~ 27.9) feet) from initial impact. Vehicle #2 rotated approximately 30 degrees clockwise after the initial impact. Next, vehicle #2 sideslapped the case vehicle and rotated counterclockwise approximately 30 degrees while moving east-southeast toward rest near the southeast corner of the intersection. Vehicle #2 came to rest heading east approximately 10.5 meters (~ 34.4 feet) from initial impact.

Post-Crash:

Occupants:

According to the case vehicle driver, he remained inside the vehicle at final rest. He was conscious and was able to exit the case vehicle. The right-front passenger also remained inside the vehicle at final rest. He was conscious and was assisted by his father to exit the case vehicle after the father was told by someone at the scene that the right-front passenger air bag was smoldering. The case vehicle was equipped with both driver and right-front passenger supplemental restraint systems (air bags) which deployed as a result of the frontal impact. The driver and right-front passenger of the case vehicle were also restrained by the available, active, three-point lap and shoulder belts. According to the driver of vehicle #2, the driver and right-front passenger were both restrained by the available, active, three-point lap and shoulder belts.

Police:

The investigating police agency was notified of the accident within one minute and arrived on-scene within seven minutes. Traffic control procedures were established and fire and towing services were called to assist. The fire department was called because the case vehicle's right-front air bag was smoldering causing smoke in the passenger compartment.

Rescue:

According to the case vehicle driver and Police Accident Report, he was not transported and did not require medical treatment. He sustained abrasions to his wrists and distal forearms. According to the driver and the Police Accident Report, the right front passenger was not transported;

COLLISION SEQUENCE (CONTINUED)

Post-Crash: Rescue: (Continued)

however, according to the driver and his medical records, he did receive medical treatment later at a hospital and from the family's physician and sustained abrasions to his face. According to the driver of vehicle #2 and Police Accident Report, neither occupant was transported; although, the driver of vehicle #2 did require subsequent medical treatment. The driver sustained, according to her interview and medical records, a cervical strain and lacerated left shin. According to the driver of vehicle #2, the right-front passenger was not injured.

Removal:

Following the police investigation, the case vehicle and vehicle #2 were towed from the scene.

HUMAN FACTORS/OCCUPANT DATA

| | Case Vehicle | Vehicle #2 |
|-----------------------------------|---|---|
| <u>Driver</u> : | 33 year-old male | 18 year-old female |
| Height: | 173 cm (68 in) | 152 cm (60 in) |
| Weight: | 73 kg (160 lbs) | 50 kg (110 lbs) |
| Occupation: | Unknown | College student |
| Active Restraint System/Usage: | 3-point lap and shoulder/Used | 3-point lap and shoul- der/Used |
| Usage Source: | Vehicle inspection, In- terviewee, Police Acci- dent Report | Vehicle inspection, In- terviewee, Police Acci- dent Report |
| Eye glasses/contacts: | None | None |
| Vehicle Familiarity: | Less than three months; less than 5,000 miles | Very familiar |
| Route Familiarity: | Unknown | Unknown |
| Trip Plan: | Running an errand and taking a child to a sports class | Home to medical clinic |
| Manner of Leaving Scene: | Private automobile | Unknown |
| Type of Medical Treatment: | None | Treatment later |

HUMAN FACTORS/OCCUPANT DATA (CONTINUED)

| | Case Vehicle | Vehicle #2 |
|--------------------------------|---|---|
| Right front Passenger: | 8 year-old male | 12 year-old male |
| Height: | 130 cm (51 in) | 145 cm (57 in) |
| Weight: | 26 kg (58 lbs) | 41 kg (90 lbs) |
| Active Restraint System/Usage: | 3-point lap and shoul- der/Used | 3-point lap and shoul- der/Used |
| Usage Source: | Vehicle inspection, In- terviewee, Police Acci- dent Report | Vehicle inspection, Interviewee, Police Accident Report |
| Eye glasses/contacts: | None | None |
| Manner of Leaving Scene: | Private automobile | Unknown |
| Type of Medical Treatment: | Treated and released with follow-up treatment later | None |

CASE VEHICLE DRIVER INJURIES

| Description of Injury | <u>A.I.S.</u> | Source of Data | Injury <u>Mechanism</u> | <u>Certainty</u> |
|---|---------------|-------------------|----------------------------|------------------|
| Abrasions, right and left medial wrists/distal forearms | 790202.1,3 | 7 | Air bag | {Certain} |

CASE VEHICLE PASSENGER INJURIES

| Description of Injury | <u>A.I.S.</u> | Source of Data | Injury <u>Mechanism</u> | <u>Certainty</u> |
|---|---------------|-------------------|----------------------------|------------------|
| Abrasions face: nose, forehead, right and left zygomatic arches | 290202.1,0 | 3 | Air bag | {Certain} |

VEHICLE #2 DRIVER INJURIES

| Description of Injury | A.I.S. | Source of Data | Injury <u>Mechanism</u> | <u>Certainty</u> |
|-----------------------|------------|----------------|---|------------------|
| Cervical strain | 640278.1,6 | 3 | Noncontact injury (i.e., differential deceleration) | {Probable} |
| Laceration left shin | 890602.1,2 | 7 | Left dash panel | {Certain} |

VEHICLE #2 PASSENGER INJURIES

| Description of Injury | A.I.S. | Source of Data | Injury <u>Mechanism</u> | <u>Certainty</u> |
|-----------------------|---------------|-------------------|----------------------------|------------------|
| Not injured | | 7,9 | Not applicable | N/A |

DRIVER KINEMATICS

According to the case vehicle driver, he was seated upright with his: back straight against the seatback, right foot on the gas pedal, left on the toepan, and hands on the steering wheel. The case vehicle driver and Police Accident Report both indicated that he was wearing his available, active, three-point lap and shoulder belt immediately prior to impact. Prior to the collision, the case vehicle driver was traversing a downgrade $(\sim -4.7\%)$ and was in the process of steering approximately 10 degrees to the southeast. According to the driver, there was not enough time to take any evasive action.

At and following impact, the case vehicle driver does not recall how he moved inside the vehicle. According to the principles of occupant kinematics, combined with the ten degree steering manuever, the driver most likely moved forward and to his right while the air bag deployed. This movement may explain how he sustained abrasions to his wrist and forearms but not his face. The driver's forward movement was most likely minimal since the decelerative forces at impact would have caused the active, three-point belts to lock-up and minimized the driver's facial contact with the air bag.

After the initial impact, the case vehicle sideslapped its right side to vehicle #2's left side. The sideslap impact most likely would have forced the case vehicle driver more toward his right followed by rebounding back to his left as the driver's seat belts limited his movement.

As the case vehicle slid to rest and the driver's air bag was deflating, the driver most likely moved forward again loading the torso portion of his seat belt. At final rest the driver was most likely close to his original pre-crash seating position.

PASSENGER KINEMATICS

Just prior to the crash, according to the case vehicle driver, his son, the right-front passenger was sitting in the middle of his seat leaning forward playing with some toys. The case vehicle driver and Police Accident Report both indicated that the right-front passenger was wearing his available, active, three-point lap and shoulder belt immediately prior to impact. The boys "leaning-forward" posture most likely accounts for his facial abrasions.

At impact the boy most likely moved forward and to his right where his movement was halted by the deploying right-front air bag. This movement is consistent with the child's subsequent medical records which described the residual injuries (i.e., 22 days post-crash) as mostly on the nose and left side of his face. Following the air bag's deployment and the subsequent counterclockwise rotation, the right-front passenger most likely moved backwards and to the right where his rightward movement was somewhat accelerated by the sideslap impact. During the subsequent sideslap impact, the right-front passenger's rightward movement was most likely restricted by his seat belts and the right-front door's interior surface.

At final rest the driver indicated that his son was leaning back in his seat crying.

| AIR BAG SYSTEM | DRIVER AIR BAG | PASSENGER AIR BAG |
|---|-------------------------|-------------------------|
| Airbag Diameter (seam-to-seam, deflated): | 48 cm (18.9 in) | 64 cm (25.2 in) |
| Number of Vent Holes: | One | One |
| Vent Hole Diameter: | 2.5 cm (1.0 in) | 4.5 cm (1.8 in) |
| Vent Hole Clock Positions: | Twelve o'clock | Twelve o'clock |
| Generant Residue: | No unusual amount found | No unusual amount found |

DISCUSSION

Concerning the post-deployment air bag fire, it must be noted that at no time was there any flame (fire) observed. The extreme heat from the exhaust cannister caused the surrounding air bag material to subsequently melt causing the excessive smoke reported by both drivers and fire personnel. No evidence of flame (fire) damage was found near the air bag, windshield, or dashboard areas during this contractor's vehicle inspection.

ACCIDENT COLLISION MEASUREMENT TABLE



U.S. Department of Transportation National Highway Traffic Safety

ACCIDENT COLLISION MEASUREMENT TABLE

NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM

Case Number-Stratum 94 Primary Sampling Unit Number _/ 6 **ACCIDENT COLLISION DIAGRAM** LEVEL I LEVEL II (Cont'd) **CRASH DATA** PHYSICAL EVIDENCE ABSENT physical evidence is present: VEH. #1 VEH. #2 VEH. #3 To be accomplished when there is no document reference point and reference physical evidence present at the scene: line relative to physical features present Heading Angle at the scene * approximate vehicle orientation at impact and final rest scaled documentation of all accident induced physical evidence applicable road/roadway delineation (e.g., Surface Type curbs/edge lines, lane markings, median scaled documentation of all roadside markings, pavement markings, etc.) objects contacted Surface applicable traffic controls (e.g., speed roadway surface type and condition of Condition limit) applicable roadways * north arrow placed on diagram grade measurements for all applicable Grade (v/h) roadways and at location of rollover Measurement sketch required initiation (between impact and final rest) scaled representations of the vehicle(s) at LEVEL II pre-impact, impact, and final rest based PHYSICAL EVIDENCE PRESENT upon either: Grade (v/h) Measurement in addition to the level I tasks noted above, a) physical evidence, or (at location of the following must be accomplished when rollover initiation) b) reconstructed accident dynamics Reference Point: FIRE Hydrant South EDGE Reference line: NE CORNER Distance and Direction Distance and Direction from Reference Point from Reference Line 7.1 W Scul +

| Item | Distance and Direction from Reference Point | Distance and Direction from Reference Line |
|-----------------------------|---|--|
| | | |
| | 5/00/2 34 | of AN |
| | 5 214 | |
| 5° | 7/40 | |
| 7 | | 1 11 / 1 |
| | 0.11 | |
| | | |
| 5 | 2 12 | |
| 3.3 | b | 1/10 |
| 5/0 PE + 48 90°E → 12.10 | | |
| 5/0 PE 7 48 | | 5.8 |
| 90°E > 12.1m | */* | 12.0 |
| | (e) Many | |
| 10/1 | monney | |
| 1.4 | , | |
| 3.2 | 13455 | 33 |
| | | |
| | 4.) | |
| | 16 4 | |
| | 1 49 | |
| | 1 1 | |
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| | | |

VECTOR ANALYSIS RESULTS

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum Case Number: 10 9416

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)
(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero) (Some Configurations Involving Heavy Trucks Give Erroneous Results)

| Vector Analysis Area | GV27(V01) | GV28(V02) | | |
|-------------------------|-----------|-----------|-----------------|-----|
| Ln. Axis Heading Angle | 168 | 90 | | |
| CG Heading Angle | 168 | 90 | | |
| CRASH 3 Slip Angle | 0 | 0 | | |
| Weight-Cargo | 11 | 0 | | |
| Weight-Vehicle Curb Wt | 1052 | 1003 | | |
| Weight-Passenger(s) | 99 | 91 | | |
| Weight-Total | 1162 | 1094 | | |
| Estimated Speed | 48 (30 |) 16 | (10) | |
| Momentum | 55776 | 17504 | | |
| PDOF (Degrees) | 18 | -84 | /91 | STM |
| PDOF (Clock Direction) | ī | 9 | | |
| Theoretical Delta V | 23.0 | 24.4 | | |
| Theoretical Common Vel. | 27 | | rash CG Heading | 152 |

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum

Case Number: 10 9416

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)
(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero) (Some Configurations Involving Heavy Trucks Give Erroneous Results)

| Vector Analysis Area | GV27(V01) | GV28(V02) | | |
|-------------------------|-----------|------------------|------------|-----|
| Ln. Axis Heading Angle | 168 | 90 | | |
| CG Heading Angle | 168 | 90 | | |
| CRASH 3 Slip Angle | 0 | 0 | | |
| Weight-Cargo | 11 | 0 | | |
| Weight-Vehicle Curb Wt | 1052 | 1003 | | |
| Weight-Passenger(s) | 99 | 91 | | |
| Weight-Total ``` | 1162 | 1094 | | |
| Estimated Speed | 48 (30) | 24 (<i>15</i>) | | |
| Momentum | 55776 | 26256 | | |
| PDOF (Degrees) | 27 | -75 | /91 | STM |
| PDOF (Clock Direction) | 1 | 10 | | |
| Theoretical Delta V | 23.8 | 25.2 | 4 | |
| Theoretical Common Vel. | 29. | 4 Post-Crash | CG Heading | 145 |

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum Case Number: 10 9416

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Re Backing)

(Neither Vehicle May Be Backing)
(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)
(Some Configurations Involving Heavy Trucks Give Erroneous Results)

| Vector Analysis Area | GV27(V01) | GV28(V02) | | |
|-------------------------|-----------|-----------|-----------------|---|
| Ln. Axis Heading Angle | 168 | 90 | | |
| CG Heading Angle | 168 | 90 | | |
| CRASH 3 Slip Angle | 0 | 0 | | |
| Weight-Cargo | 11 | 0 | | |
| Weight-Vehicle Curb Wt | 1052 | 1003 | | |
| Weight-Passenger(s) | 99 | 91 | | |
| Weight-Total | 1162 | 1094 | | |
| Estimated Speed | 48 (3 | o) 32 | (20) | |
| Momentum | 55776 | 35008 | • | |
| PDOF (Degrees) | 35 | -67 | /91 | STM |
| PDOF (Clock Direction) | i | 10 | | • |
| Theoretical Delta V | 25.1 | 26.7 | | |
| Theoretical Common Vel. | | | rash CG Heading | 139 |

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum Case Number: 10 9416

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Re Backing)

(Neither Vehicle May Be Backing)
(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)
(Some Configurations Involving Heavy Trucks Give Erroneous Results)

| Vector Analysis Area | GV27(V01) | GV28(V02) | | |
|-------------------------|----------------|-----------|-----------------|-----|
| Ln. Axis Heading Angle | 168 | 90 | | |
| CG Heading Angle | 168 | 90 | | |
| CRASH 3 SĬip Ăngle | 0 | 0 - | | |
| Weight-Cargo | 11 | Ö | | |
| Weight-Vehicle Curb Wt | 1052 | 1003 | | |
| Weight-Passenger(s) | 99 | 91 | | |
| Weight-Total \(\) | 1162 | 1094 | | |
| Estimated Speed | 48 (30) | 40 | (25) | |
| Momentum | 55776 ° | 43760 | | |
| PDOF (Degrees) | 43 | -59 | /91 | STM |
| PDOF (Clock Direction) | 1 | 10 | | |
| Theoretical Delta V | 27.0 | 28.7 | | |
| Theoretical Common Vel. | 34. | 5 Post-Ci | rash CG Heading | 135 |

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum Case Number: TRC/IU 94-16

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)
(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero) (Some Configurations Involving Heavy Trucks Give Erroneous Results)

| Vector Analysis Area | GV27(V01) | GV28(V02) | |
|--|---|--|------------|
| Ln. Axis Heading Angle CG Heading Angle CRASH 3 Slip Angle Weight-Cargo Weight-Vehicle Curb Wt Weight-Passenger(s) | 168 168 0 11 1052 99 1162 | 90 90 0 0 1003 91 1094 | |
| Estimated Speed Momentum PDOF (Degrees) PDOF (Clock Direction) Theoretical Delta V Theoretical Common Vel. | 65072 16 1 26.6 | 15) 16 (10) 17504 -86 //91 9 28.3 1.4 Post-Crash CG Heading | STM 154 |

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum Case Number: TRC/IU 94-16

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)
(Neither Vehicle May Be Backing)

(Neither Vehicle May Be Backing)
(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)
(Some Configurations Involving Heavy Trucks Give Erroneous Results)

| Vector Analysis Area | GV27(V01) | GV28(V02) | | |
|-------------------------|-----------|-------------|-----------------|-----|
| Ln. Axis Heading Angle | 168 | 90 | | |
| CG Heading Angle | 168 · | 90 | | |
| CRASH 3 Slip Angle | 0 | 0 | | |
| Weight-Cargo | 11 | 0 | | |
| Weight-Vehicle Curb Wt | 1052 | 1003 | | |
| Weight-Passenger(s) | 99 | 91 | | |
| Weight-Total | 1162 | 1094 | 4 3 | |
| Estimated Speed | 56 (3 | 5) 24 | (15) | |
| Momentum | 65072 | 26256 | | |
| PDOF (Degrees) | 23 | -79 | /91 | STM |
| PDOF (Clock Direction) | 1 | 9 | | |
| Theoretical Delta V | 27.2 | 28.9 | | |
| Theoretical Common Vel. | 33 | 3.3 Post-Ci | rash CG Heading | 148 |

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum Case Number: TRC/IU 94-16

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)
(Neither Vehicle May Be Backing)
(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)

(Some Configurations Involving Heavy Trucks Give Erroneous Results)

| Vector Analysis Area | GV27(V01) | GV28(V02) | | |
|-------------------------|-----------|-----------------|----------------|-----|
| Ln. Axis Heading Angle | 168 | 90 | | |
| CG Heading Angle | 168 | 90 | | |
| CRASH 3 Slip Angle | 0 | 0 | | |
| Weight-Cargo | 11 | 0 | | |
| Weight-Vehicle Curb Wt | 1052 | 1003 | | |
| Weight-Passenger(s) | 99 | 91 | | |
| Weight-Total | 1162 | 1094 | | |
| Estimated Speed | 56 (| 3 <i>5</i>) 32 | (20) | |
| Momentum | 65072 | 35008 | | |
| PDOF (Degrees) | 31 | -71 | /91 | STM |
| PDOF (Clock Direction) | 1 | 10 | ASSESSED ! | |
| Theoretical Delta V | 28.3 | 30.1 | | |
| Theoretical Common Vel. | 3 | 5.5 Post-Cr | ash CG Heading | 143 |

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum Case Number: TRC/IU 94-16

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated) (Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero) (Some Configurations Involving Heavy Trucks Give Erroneous Results)

| Vector Analysis Area | GV27(V01) | GV28(V02) | | |
|-------------------------|-----------|-----------------|----------------|-----|
| Ln. Axis Heading Angle | 168 | 90 | | |
| CG Heading Angle | 168 | 90- | | |
| CRASH 3 SĬip Ăngle | 0 | 0 | | |
| Weight-Cargo | 11 | 0 | | |
| Weight-Vehicle Curb Wt | 1052 | 1003 | | |
| Weight-Passenger(s) | 99 | 91 | | |
| Weight-Total | 1162 | 1094 | _ | |
| Estimated Speed | 56 C | 3 5) 40 | (25) | |
| Momentum | 65072 | 43760 | | |
| PDOF (Degrees) | 37 | -65 | /91 | STM |
| PDOF (Clock Direction) | 1 | 10 | | |
| Theoretical Delta V | 29.9 | 31.8 | | |
| Theoretical Common Vel. | 3 | 8.0 Post-Cr | ash CG Heading | 138 |

CASE VEHICLE REPAIR ESTIMATES

CD LOG NO

DATE 94
INSP DATE 994

SHOP CONTACT:

OWNER
ADDRESS
CITY STATE
ZIP
WI

HOME PHONE WORK PHONE

CORRECTION

LIC#
BODY COLOR BLACK
CONDITION EXCL

VIN 1P3ES4735SD MILEAGE 4935 ACCT'NG CTL#

E=NEW PART EC=ECONOMY PART EU=SALVAGE PART
I=REPAIR/ALIGN/SUBLET L=REFINISH
TE=PART/PARTIAL REPLACE
AA=APPEARANCE ALLOWANCE RP=RELATED PRIOR DAMAGE

EP=SEE PX REPORT P=CHECK
N=ADDITIONAL LABOR OPERATION
IT=LABOR/PARTIAL REPAIR
UP=UNRELATED PRIOR DAMAGE

1995 PLYMOUTH NEON 4 DR SEDAN

OPTNS OPTNS

OPTIONS: TINTED GLASS RIGHT REMOTE CONTROL MIRROR HEATED BACK GLASS AIR CONDITIONING

| OP | GDE | MC | DESCRIPTION | | MFG. PART NO. | PRICE | AJ% | HOURS 1 | R |
|-----------------------|--|----|--|----------------------------------|---|--|-----|--|------------------------|
| O ELEEEEEEEELEENEEEEL | GDE 006 006 011 014 015 019 020 010 021 028 041 042 973 056 057 048 049 083 083 | | COVER, FRONT BUMPER COVER, FRONT BUMPER REINF, FRT BMPR COVER RET, FRT BUMPER COVER RET, FRT BUMPER COVER RET, FRT BUMPER COVER RET, FRT BUMPER COVER BRKT, FRONT LIC PLATE ABSORBER, FRONT BUMPER GRILLE ASSEMBLY GRILLE ASSEMBLY HEADLAMP ASSY, HALOGEN HEADLAMP ASSY, HALOGEN HEADLAMPS AIM | LT RT LT RT LT RT | EF08PD7 REFINISH 5288003 5263818 5263818 5263821 5263820 HV39PD7 5263904 4741499 REFINISH | PRICE 205.00 66.50 .85 .85 3.35 15.50 40.50 11.25 142.00 142.00 6.95 6.95 46.25 210.00 | | 1.6 2.0 .2 .3 .3 .2 .2 .5 | 1411111111111111111111 |
| E E E | 092 089 084 | 01 | EMBLEM, HOOD PANEL SUPT, HOOD LOCK VERT HINGE, HOOD PANEL | | KS75PPW 4655474 5255565 | 11.75 28.75 7.50 | | .2 | 1 1 1 |

| | | | | | DD-1111611 | | 2.4 |
|---|-----|-----|--|------|--------------|--|--------|
| L | 084 | | | | REFINISH | | .3 4 |
| E | 085 | | HINGE, HOOD PANEL | RT | 5255564 | 7.50 | 1 |
| L | 085 | | HINGE, HOOD PANEL | RT | REFINISH | | .3 4 |
| Ē | 069 | 07 | | LT | 4655215 | 12.50 | 6.3 1 |
| Ĺ | 069 | 0, | | | REFINISH | | .5 4 |
| | | ^= | | | 4655214 | 16.75 | 3.4 1 |
| E | 070 | 0 / | PANEL, RADIATOR SIDE | | | 10.75 | |
| L | 070 | | PANEL, RADIATOR SIDE | KT. | REFINISH | 40 85 | .3 4 |
| E | 075 | 07 | CRSMBR, RAD PANEL UPR | | 4655390 | 48.75 | 1.4 1 |
| L | 075 | | CRSMBR, RAD PANEL UPR | | REFINISH | | .2 4 |
| E | 079 | 07 | CRSMBR, RAD PNL LOWER | | 4741415 | 39.25 | 1.4 1 |
| Ĺ | 079 | • | CRSMBR, RAD PNL LOWER | | REFINISH | | .2 4 |
| Ē | 096 | 07 | SUPT, RADIATOR SD PANEL | T.TT | | 17.25 | .6 1 |
| | | 07 | GUDE DADIAGOD OD DANEL | T | DEETNICH | 17.25 | .2 4 |
| L | 096 | | SUPT, RADIATOR SD PANEL | ΤŢ | KELINION | 17 05 | |
| E | 097 | 07 | SUPT, RADIATOR SD PANEL | RT | 4655520 | 17.25 | .6 1 |
| L | 097 | | SUPT, RADIATOR SD PANEL | RT | REFINISH | | .2 4 |
| E | 755 | | RADIATOR | | 4740097 | 280.00 | 1 |
| E | 758 | 01 | RADIATOR SHROUD, RADIATOR SENSOR, AIR BAG SENSOR, AIR BAG CONDENSER, A/C FENDER, FRONT | | 4740102 | 26.75 | .3 1 |
| Ē | 081 | - | SENSOR ATR BAG | T.T | 5266291 | 62.50 | 2 |
| Ē | 082 | | SENSOR ATP BAC | חים | 5266291 | 62.50 | 2 |
| Ē | | | COMPENSED A /C | 1/1 | 4740100 | 320.00 | 2 |
| | 731 | | CONDENSER, A/C | | 4740103 | | |
| E | 103 | | FENDER, FRONT | LT | *4/4121/ | 150.00 | 2.0 1 |
| L | 103 | | FENDER, FRONT | LT | REFINISH | | 2.4 4 |
| E | 104 | | FENDER, FRONT | RT | 4741216 | 150.00 | 2.0 1 |
| L | 104 | | FENDER, FRONT | RT | REFINISH | | 2.4 4 |
| E | 529 | 01 | MLDG, FENDER SIDE I | /R | FX21PD7 | 7.60 | .2 1 |
| E | 530 | 01 | MLDG, FENDER SIDE F | ₹/R | FX20PD7 | 7.60 | .2 1 |
| Ē | 107 | V- | | | 5255551 | 11.50 | ī |
| Ē | 782 | | MOUNT ENGINE | | 4612126 | 39.75 | .2 2 |
| Ē | | | MOUNT, ENGINE | | | | |
| E | 796 | | | | 4668224 | 28.75 | .2 2 |
| E | 798 | | BRKT, ENGINE MOUNT | RT | 4668156 | 32.25 | .2 2 |
| E | 789 | | BRKT, ENG MOUNT FRONT | | 4668005 | 14.25 | .2 2 |
| N | 969 | | SUSP ALIGN, 4 WHEEL | | ADDTL LABOR | | 1.8 2 |
| E | 870 | | COIL, IGNITOR | | 5286453 | 32.25 14.25 59.00 320.00 14.75 635.00 420.00 | 1.0 2 |
| E | 812 | 01 | MODULE, AIR BAG CONTROL | | 4625828 | 320.00 | .2 2 |
| Ē | 820 | - | OUTLET, AIR VENT DUCT | RТ | 5264590 | 14.75 | .1 1 |
| Ē | 869 | ٥1 | MODULE, PASS AIR BAG | *** | EM28PD5 | 635 00 | .3 2 |
| Ĕ | 878 | | | | EP92PF8 | 420.00 | |
| | | ΟI | MODULE, DRIVER AIR BAG | | | | 2 |
| I | 207 | | DOOR SHELL, FRONT | LT | REPAIR/ALIGN | | .5*1 |
| E | 208 | | | | 4741332 | 260.00 | 4.3 1 |
| L | 208 | | DOOR SHELL, FRONT | RT | REFINISH | | 2.9 4 |
| E | 427 | 01 | MLDG, FRONT DOOR SIDE | RT | FX22PD7 | 32.50 | .2 1 |
| L | M01 | | CLEAR COAT | | REFINISH | | 3.6*4 |
| | M03 | | FLEX ADDITIVE | | ECONOMY PART | 12.00* | 4 |
| | M05 | | RUSTPROOFING | | ECONOMY PART | 35.00* | 4 |
| | | | | m | | 35.00* | |
| Ī | 000 | | UNIBODY-FRAME INCL SETU | | | 100 07: | 8.0*3* |
| I | | | ECAC & RECHARGE AIR CON | | | 132.05* | |
| E | | | L&R CAP ASSY. AT AIR BA | ١G | NEW PART | 4.90* | |
| E | | | STEERING WHEEL BACKING | | NEW PART. | 13.75* | 1.0*1* |
| E | _ | | BATTERY CABLES | | NEW PART | 53.00* | 3.0*2* |
| | | | | | | | |

72 ITEMS

MC MESSAGE

01 CALL DEALER FOR EXACT PART # REQUIRED 07 STRUCTURAL PART AS IDENTIFIED BY I-CAR

| FINAL CALCULATIONS & ENTRIES | | | |
|------------------------------|---|--------|----------|
| GROSS PARTS | • | | 4,161.15 |
| OTHER PARTS | | | 47.00 |
| PAINT MATERIAL | | | 356.40 |
| PARTS TOTAL | | | 4,564.55 |
| TAX ON PARTS & MATERIAL | a | 5.000% | 228,23 |

| LABOR | RATE | REPLACE | HRS | REPAIR HRS | 5 | | |
|--------------------------|------------|------------------|-----|------------|------|------|-------------|
| 1-SHEET METAL | 36.00 | 28.1 | | 1.0 | 1,04 | 7.60 | |
| 2-MECH/ELEC | 38.00 | 5.3 | | 1.8 | 26 | 9.80 | |
| 3-FRAME | 38.00 | | | 8.0 | 30 | 4.00 | |
| 4-REFINISH | 36.00 | 19.8 | | | 71 | 2.80 | |
| 5-PAINT MATERIAL | 18.00 | | | | | | |
| LABOR TOTAL | | | | | 2,33 | 4.20 | |
| TAX ON LABOR | | | e | 5.000% | 11 | 6.71 | |
| SUBLET REPAIRS | | | | | 13 | 2.05 | |
| TOWING | | | | | | | |
| STORAGE | | | | | | | |
| GROSS TOTAL | | | | | 7,37 | 5.74 | |
| | | | | | | | |
| NET TOTAL | | | | | 7,37 | 5.74 | |
| | | as. h : 400 t (8 | | | | | |
| ADP SHOPLINK U ES LO | OG 0000347 | DATE TO | 94 | 11:34:27 | R3.1 | CD | 94 |
| DVN • NN /00 /00 /00 /00 | | - | | | | - | 50 2 |

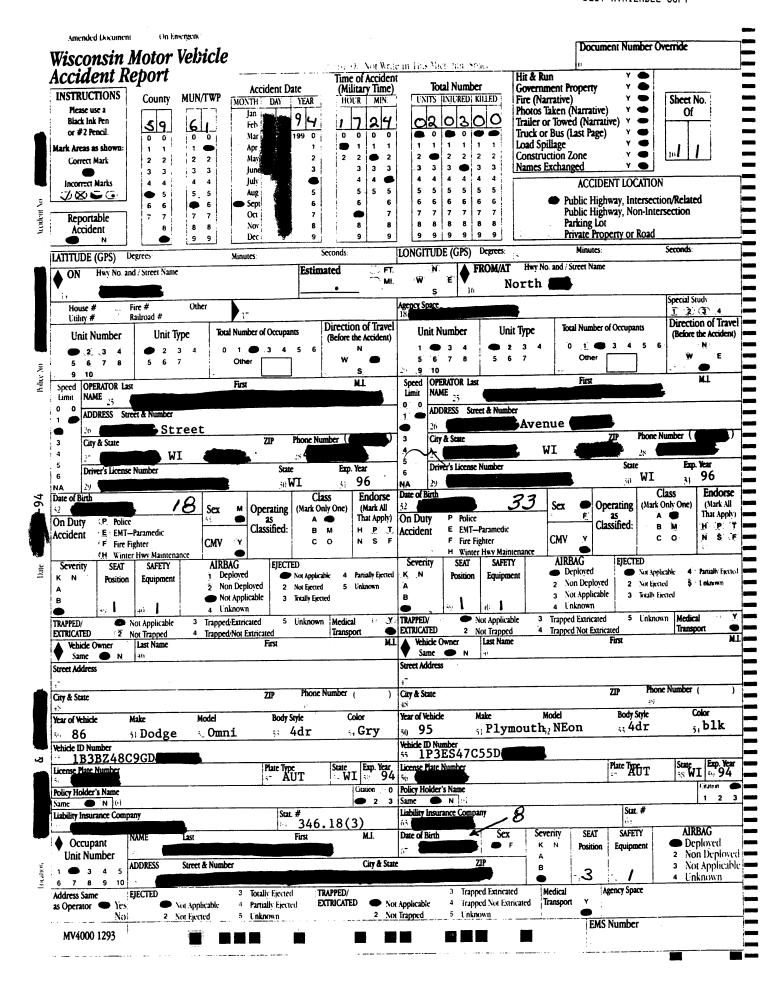
COPYRIGHT 1994, AUTOMATIC DATA PROCESSING, INC.

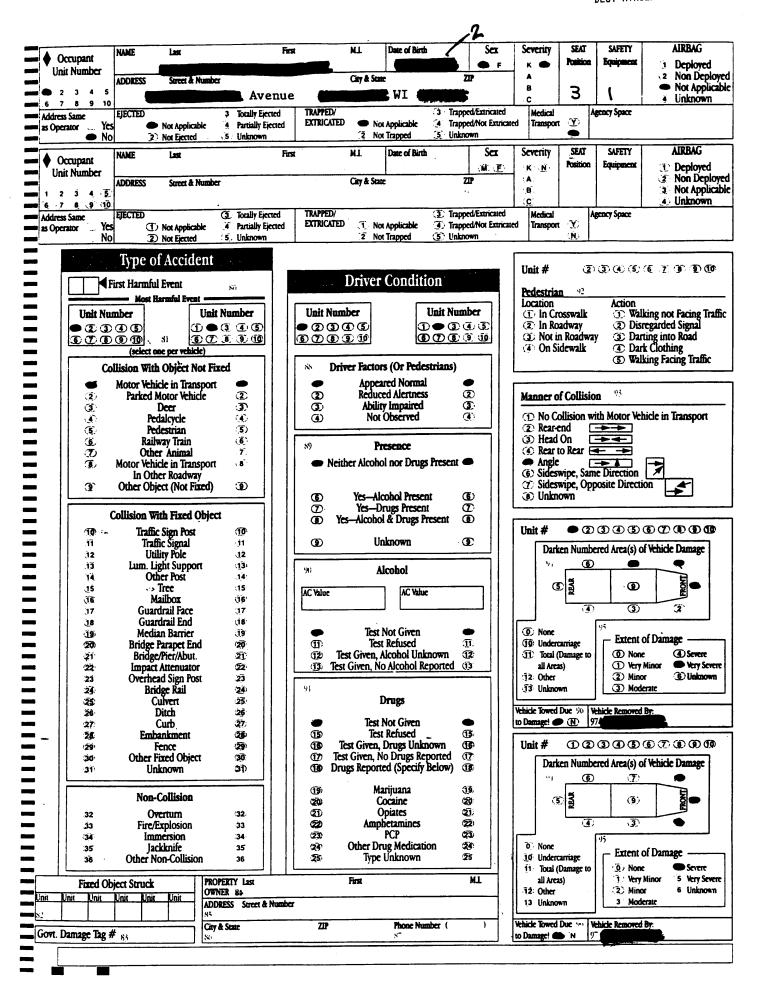
THIS ESTIMATE HAS BEEN PREPARED BASED ON THE USE OF ONE OR MORE REPLACEMENT PARTS SUPPLIED BY A SOURCE OTHER THAN THE MANUFACTURER OF YOUR MOTOR VEHICLE. WARRANTIES APPLICABLE TO THESE REPLACEMENT PARTS ARE PROVIDED BY TH

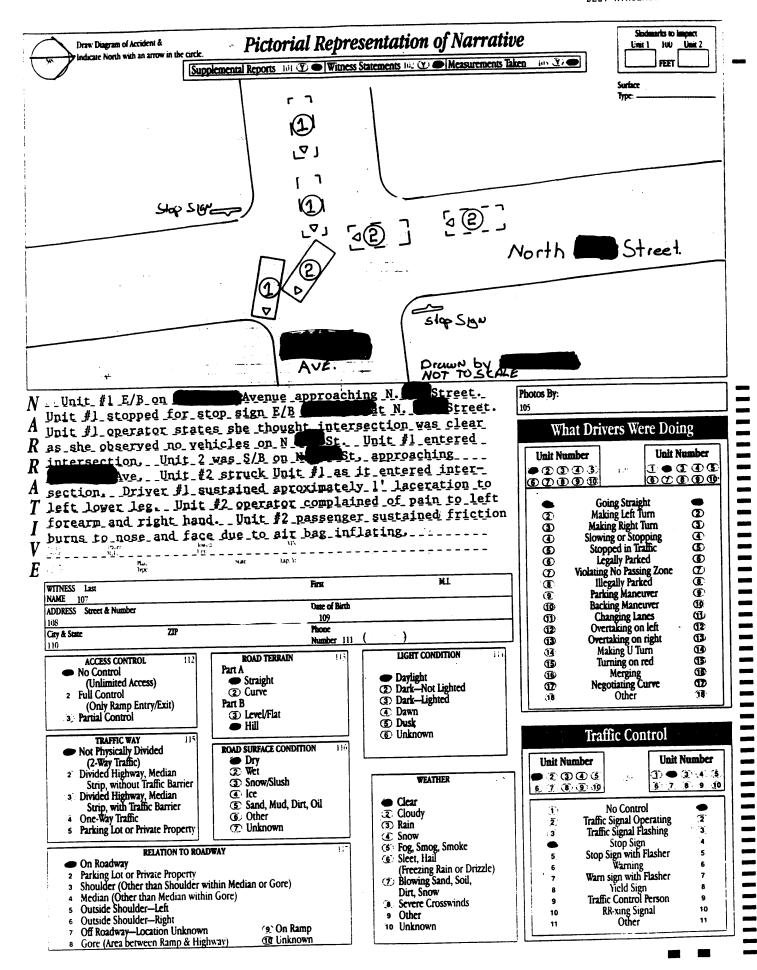
MANUFACTURER OR DISTRIBUTOR OF THE REPLACEMENT PARTS RATHER THAN BY THE MANUFACTURER OF YOUR MOTOR VEHICLE.

Appendix A:

POLICE ACCIDENT REPORT







|)fficer's Opini | | | | G | | | | | | | |
|--|--|--|--|---|---------------------------------------|--|--|--|--|--|---|
| | Factors | | | ehicle Fact | | 5.00 | : 27. | | Highwa | y Facto | 12 |
| | - | Unit Number Unit Number | | | | Unit Number Unit Numb | | | | | |
| Unit Number | Unit Number | - | 2 3 4 | | 1 🖷 3 | | 1 1 | | 4 5 | . 1 | 3 4 |
| 2 3 4 5 6 7 8 9 10 | 6 7 8 9 | -11 1:- | 7 8 9 | | _ | 9 10 | 6 | 7 8 | 9 10 | 6 | 7 8 9 |
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| When To Use This Section Part A A truck with at least two a A truck with at least two a A truck with a hazardous I A bus designed to carry It TOP! If all the responses to ccident Information Section Part B Any person who was fatall Any injured person requir One or more vehicles that One or more vehicles that proceeding from scene TOP! If all the responses to lease complete this Truck 6 Carrier Interstate Carrier? Carrier Name 139 Vehicle I Vehicle Configuration 1 2 3 4 Ran off Ro 1 2 3 4 Pownfill 1 2 3 4 Overturn 1 2 3 4 Downfill 1 2 3 4 Cargo Los 1 2 3 4 Cargo Los 1 2 3 4 Explosion 1 2 3 4 Explosion 1 2 3 4 Explosion 1 2 3 4 Separation 1 2 3 4 Separation 1 2 3 4 Separation | ccident Info Did the selection of the s | chuding the driver to complete this Tri answers, continue the scene as a receptor to continue. If there is the scene as a receptor to the scene as a recepto | carrier US DOT ICC MC Carrier Carrie | Section Must I | N N N N N N N N N N N N N N N N N N N | • Hazardo • Haza | Dus Mater Dus Ma | IBS Body T | y y y y y y y y y y y y y y y y y y y | this Accide 11 Or 112 11-2 digit): d? ame in this ious Mater Ce: Vel Shi Tri Dri Lor xies 1 | s load: rial(s): p Manifest ner, g Book |

INCIDENT RECAP REPORT

| ALARM | ADDRESS | Street & | Avenu | e_ DATE 4 |
|--|---|---|--|---|
| Daniel Cul | | | P.I.D | GRID |
| Report | omitting | Title Shift | Commander | Unit |
| vehicular a smoking. 1 | accident at | cion was made | Avenue with o via a police | 1735 hours, the a report of a one of the vehicles officer on scene. |
| A single responded o | alarm was subs on the first alar | sequently di m: Engine # | spatched. The and Comman | following units d # |
| two vehicles sland the part of | e accident with lightly injured. Assenger side air ad been deployed. In after deployment the air bag. The that were involved. | fluids leak The report bag in a The air A porta Absorbent w and firefigh wed in thi | ing and the of the vehice 1995 Plymou bag actually ble water fir as used to ters then atte s accident. ident refused | y and discovered a occupants of both the smoking stemmed the Neon smoldering caught fire and the extinguisher was cover the fluids anded to two of the It should be noted transport to a contacted. |
| driver of d | one vehicle who a | as extremely | upset by t | flow oxygen to the the events that had face of a juvenile |

firefighters rendered first aid in the form of low flow oxygen to the driver of one vehicle who as extremely upset by the events that had occurred and also administering an ice pack to the face of a juvenile male who suffered rug burn type injuries to his face due to the deployment of the air bag. The owner of the Plymouth Neon was issued a Hazardous Substance Spill letter and was informed of the city's policy for cleanup cost. A Hazardous Materials Invoice should accompany this report which consisted of one bag of absorbent with disposal.

This incident concluded at 1828 hours with all fire suppression units back in service.

| | WISCONSIN FIRE INCIDENT REPORTING SYSTEM | ENTER NAME OF FIRE DEPT. | BEST AVAILABLE CO | PY |
|--------|---|---|--|----------------------------|
| Α | FDID INCIDENT NO. EXP. | MO. YEAR DAY OF WEEK 1 Daynoav 3 Divesoav 914 Daynoav 4 Dwednesoav | 5 Thursday ALAHM TIME BA | 181218 |
| В | NOTION OF THE PROPERTY OF THE | ATIAL MENU – SEE HANDBOOK auditure 44 | 54 Anima Rescue mistaken tor smo 55 Assist Police 71 Maicious taise 55 Unauthorized burning 72 Bomb Scare 73 Alarm Mallunctio 59 Other service calls 61 Smoke scare Other Code 1 MUTUAL AID | me . |
| | 1 DE Extinguishment 5 DS ST | aivage 9 Not classified moulance 0 Undetermined | 3 2 Green | COMP |
| C | FIXED PROPERTY USE (Occupancy) | IGNITION FACTOR | ATIONAL DEFICIENCY | 7.9 INCIDENTS STRACT 27.00 |
| D | CORRECT ADDRESS (Up to maximum of 21 charact | ters) | and the same of th | STRACT TO SE |
| Ε | OCCUPANT NAME (LAST, FIRST, M | | TELEPHONE ROOM of AP | 2 |
| F | OWNER NAME (LAST, FIRST, MI) | ADDRESS | AUE | |
| G | 12 1 Telephone direct 5 To Verbal 9 | Not classified above DISTRIC | PECTION SHIFT NO. ALARMS | |
| Н | 3 Private alarm system 7 Te-line (911) NO. FIRE SERVICE PERSONNEL | NO. ENGINES NO. AERIAL A | | |
| •• | NUMBER OF INJURIES | | F FATALITIES | |
| I | FIRE SERVICE | CIVILIAN 1 1 FIRE SERVI | CE 1 1 CIVILIAN | Eq. (q |
| J | COMPLEX | MOBILE PROPERTY TYPE | (Complete Line S) | 1/1/ |
| K | AREA OF FIRE ORIGIN THIS ENGER COMPAR | | EHICLE | 1960 30 |
| L | AIR BAG DEPLOYMENT 1919 | YPE OF MATERIAL IGNITED UNDETERMINED DIC | FORM OF MATERIAL IGNITED AR BAG BIN Master stream device | COMPLETE FOR ALL FIRES |
| М | EXTINGUISHMENT Self extinguished 3 | | bydrant draft standpipe 9 U Not classified above 0 Undetermined or not reported | |
| ••• | | LAR LOSS (DO NOT SHOW CENTS) | NFIRS 1 LAYOUT 4 DISCLAIMER: No repre is made, intended, or it to the validity or acc information shown. | mplied as |
| N | Number of Stories 1 | torres 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | STRUCTION TYPE Fire resistive Heavy limber Protected noncombustible Protected oncombustible Protected ordinary S Unprotected wood frame 9 Not classified above Undertermined or not reported | |
| ō | Contined to the object of origin Contined to part of room or area of origin Contined to part of room or area of origin Contined to one of origin Contined to the fire-rated comp. of origin Contined to thoor of origin Contined to thoor of origin Contined to Solve the origin Contined to Solve the origin | DETECTOR PERFORMAN Del. in room or space of irre Del. not in right or space of origin Del. not in right or space of origin Del. not in right or space of to Del. Not classified above No damage of Del. Del. deletermined or not report | e origin - oper. ire origin - oper. ire origin - oper. origin - no oper. ire origin. 1 | |
| Q | TYPE OF MATERIAL GENERATING MOST SMOKE IF SMOKE SPREAD BEYOND ROOM OF ORIGIN | this type (N/A) 8 No detectors present | | |
| R | FORM OF MATERIAL GENERATING MOST SMOKE IF SMOKE SPREAD BEYOND ROOM OF ORIGIN | | | |
| c | 30 IF MOBILE PROPERTY YEA | | SERIAL NO. | 0 401 |
| S T | 30 IF EQUIPMENT INVOLVED 40 IN IGNITION 9 | AR MAKE MODEL | SERIAL NO. J 1P3ES47C5SD | |
| | SBD 5301 (R. 12/88) | EMBER MAKING REPORT | | DATE |

Appendix B:

CRASHPC PROGRAM RESULTS,
SMASH PROGRAM RESULTS, AND
EDCRASH PROGRAM RESULTS



U.S. Department of Transportation

CRASHPC PROGRAM SUMMARY

Mishway Traffic Safety (All Measurements in Metric)

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

| Administration | · ' | | | CRASHWORTHINES | S DATA SYSTEM |
|--|------------------|-----------------------------|---------------------------|---|------------------|
| Identifying Title Primary Sampling Unit | Gase NoStratum | | coident Event equence No. | Date (Month, day, year) of Ru | un . |
| CRASHPC Vehicle Ide | entification | | | | |
| Vehicle 1 | 95 | Plymou | <u>tn</u> _ | NEON | |
| Vehicle 2 | 86 | Doda | <u>e</u> | OMNI | _2_ |
| | Year | Make | | Model | NASS Ven. No. |
| | G | ENERAL IN | FORMAT | ION | |
| | VEHICLE I | | | VEHICLE 2 | |
| Size | VEI IIOLE I | 3 | Size | | 2 |
| Weight | | | Weight | _ | |
| 1052+99+ | | <u>2</u> kg | 1003 - | $+\frac{91}{\text{Occupant(s)}} + \frac{0}{\text{Cargo}} = \frac{1}{1} + \frac{0}{1}$ | 94 kg |
| CDC C | IFDE | WI | CDC | 10 L F E | <u> </u> |
| PDOF (-180 to +180 | , — _ | 300 | PDOF (-1 | 180 to +180) 🖒 | <u>70</u> ° |
| Stiffness | | 9_ | Stiffness | 90 | 2 |
| | 148 | | | <u>'</u> | |
| | | SCENE INF | ORMATIO | ON | |
| Rest and Impact Posi | tions [] No, Go | To Damage Ini | formation |] Yes | |
| 1 | /EHICLE 1 | | | VEHICLE 2 | |
| Base | x | . m | Rest | X | . m |
| Rest Position | Ŷ | — : —— ''' . m | Position | Υ | |
| | PSI | | | PSI | |
| | | | | | |
| Impact Position | x | · m | Impact Position | x | · m |
| Fosition | Υ | · m | | Υ | · m |
| | PSI | ° | | PSI | ·—- ° |
| Slip Angle(-180 to + | 180) | ° | | gle (-180 to +180) | ° |
| | | VEHICLE | OITOM E | N | |
| Sustained Contact | No [] Yes | | | | |
| | VEHICLE 1 | | | VEHICLE 2 | |
| Vehicle Rotation | inga ua | I l Yes | Vahiola | Rotation [] No | [] Yes |
| 11.7 | | • • • | | ation Stop Before Rest [] No | |
| Rotation Stop Be | fore Rest [] No | [] Yes | nute | ation otop before near () No | , , |
| End of Rotation Position | x | m | End | of Rotation X | · m |
| Position | Υ | m | 1 031 | Υ | · m |
| | PSI | · —— ° | | PSI | ° |
| Curved Path | I] No | [] Yes | Curved | Path [] No | [] Yes |
| Point on Path | 1 , 100 | . , | | nt on Path | |
| X | m Y | m | | | m |
| Rotation Direction Rotation > 360° | [] None [] CV | v [] CCW | | Direction [] None [] CV on >360° [] No [] Yes | v () ccw |

| FRICTION | INFORMATION | TRAJECTOR | Y INFORMATION |
|-------------------------|--------------------------------|----------------------------|--|
| Coefficient of Friction | | Trajectory Data [] | No [] Yes |
| Rolling Resistance Opt | ion | If No. Go To Damage | Information |
| | | Vehicle 1 Steer Angles | , |
| Vehicle 1 Rolling R | Resistance | LF | <u> </u> |
| LF | RF | LR | |
| LR | RR | | |
| | | Vehicle 2 Steer Angles | · |
| Vehicle 2 Rolling R | | LF | |
| LF | | LR | ° RR ° |
| LR | RR | | |
| | | Terrain Boundary [|]:No [] Yes |
| | | First Point | |
| | | X m | Y m |
| | | Second Point | |
| | | X | Y m |
| | | Secondary Coefficient | of Friction . |
| | | | |
| | DAMAGE IN | FORMATION | |
| VE | EHICLE 1 | VE | HICLE 2 |
| Damage Length | L <u> </u> | Damage Length | L <u>/80</u> cm |
| Crush Depths | C,cm | Crush Depths | C ₁ O_cm |
| • | C ₂ | | C ₂ |
| | C, | , | 1 2 |
| | C ₄ 5 cm + | Reversed | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ |
| | C ₆ 4 cm & | No consequence | C ₆ |
| | C ₆ | U | C ₆ cm |
| Damage Offset | D ① 1 5 cm | Damage Offset | D <u> </u> |
| - Children | | Damage Offset | D = 1 + 3 cm |
| | | | |
| IF THIS COMMON IMP | ACT WAS WITH A MOTOR VEHICL | NOT IN TRANSPORT, FILL II | N THE INFORMATION BELOW. |
| Model Year: | | The Weight, CDC, Scene | Data and Damage Information |
| Make: | | for this vehicle should be | |
| Model: | | | |
| | | | |
| VIN: | | i i | |
| VIN: | | . 1 | |
| VIN: | d ATTACH the appropriate vehic | e damage sketch and dime | nsions to the Form. |

FT-LB)

SUMMARY OF CRASHPC RESULTS USING DAMAGE

SCI94-16

SPEED CHANGE (DAMAGE)

| VEHICLE #1 | |
|---------------------|----------------------|
| TOTAL | 16 KPH (10 MPH) |
| LONGITUDINAL | -14 KPH (-8 MPH) |
| LATITUDINAL | -8 KPH (-5 MPH) |
| FDOF ANGLE | 30 DEGREES |
| ENERGY DISSIPATED = | 20453 JOULES (15084 |
| | |

 VEHICLE #2

 TOTAL
 17 KPH (10 MPH)

 LONGITUDINAL
 -6 KPH (-4 MPH)

 LATITUDINAL
 16 KPH (10 MPH)

 PDOF ANGLE
 -70 DEGREES

ENERGY DISSIPATED = 12252 JOULES (9036 FT-LB)

DAMAGE DATA

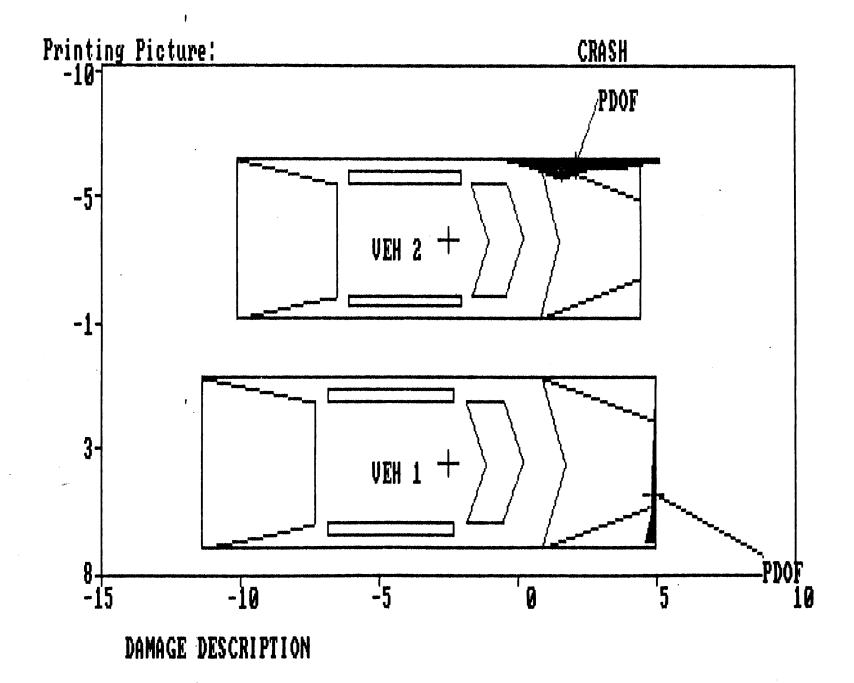
| VEHICLE #1 | VEHICLE | #2 |
|------------|---------|----|
| | | |

| SIZE CATEGORY | 3 | 2 2 |
|--------------------------|-------------------------|----------------------|
| STIFFNESS CATEGORY | 9 1142 KGS (2562 LBS) | 1094 KGS (2412 LBS) |
| VEHICLE WEIGHT | 1162 KGS (2562 LBS) | |
| CDC | O1FDEW1 | 10LFEW2 |
| PDOF ANGLE | 30 DEGREES | -70 DEGREES |
| CRUSH LENGTH | 140 CM. (55 IN.) | 180 CM. (71 IN.) |
| C1 | 2 CM. (1 IN.) | 0 CM. (0 IN.) |
| - 62 | 1 CM. (O IN.) | 8 CM. (3 IN.) |
| C3 | 3 CM. (1 IN.) | 22 CM. (9 IN.) |
| | evence 7 5 CM. (2 IN.) | 10 CM. (4 IN.) |
| C5] Reversed; no conseq | 6 4 CM. (2 IN.) | 8 CM. (3 IN.) |
| C6 | 10 CM. (4 IN.) | 2 CM. (1 IN.) |
| D | 15 CM. (6 IN.) | 143 CM. (56 IN.) |
| D, | 36 CM. (14 IN.) | 140 CM. (55 IN.) |

(* INDICATES DEFAULT VALUE)

DIMENSIONS AND INERTIAL PROPERTIES

| · | VEHICLE #1 | VEHICLE #2 |
|--------------------|------------------------|--------------------------|
| CG TO FRONT AXLE | 130 CM. (51 IN.) | 118 CM. (46 IN.) |
| CG TO REAR AXLE | 141 CM. (56 IN.) | 127 CM. (50 IN.) |
| TRACK | 150 CM. (59 IN.) | 139 CM. (55 IN.) |
| CG TO FRONT OF VEH | 228 CM. (90 IN.) | 212 CM. (83 IN.) |
| CG TO REAR OF VEH | -270 CM. (-106 IN.) | -233 CM. (-92 IN.) |
| CG TO SIDE OF VEH | 92 CM. (36 IN.) | 85 CM. (34 IN.) |
| MOMENT OF INERTIA | 10043 KGS (22140 LBS) | .8394 KGS (1850b LBS) |
| VEHICLE MASS | 3 KGS (7 LBS) | 3 KGS (6 LBS) |



SMASH RECONSTRUCTION PROGRAM RESULTS

| 1994 | | Page 1 |
|------|---------------------------------|--------|
| | Summary of Results Using Damage | |

SC194-16

Speed Change (Damage)

Vehicle #1

Total 15 kph (9 mph)
Longitudinal -13 kph (-8 mph)
Latitudinal -8 kph (-5 mph)
PDOF Angle 30 °

Energy Dissipated = 20453 Joules (15084 Ft-Lb) Calculated using size and stiffness categories.

Vehicle #2

Total 16 kph (10 mph)
Longitudinal -5 kph (-3 mph)
Latitudinal 15 kph (9 mph)
PDOF Angle -70 °

Energy Dissipated = 34514 Joules (25453 Ft-Lb) Calculated using size and stiffness categories.

General Information

| | Vehicle #1 | Vehicle #2 |
|---------------------|----------------------|----------------------|
| Year | 1995 | 1986 |
| Make | PLYMOUTH | DODGE |
| Model | NEON . | OMNI |
| CDC | 01FDEW1 | 10FLEW2 |
| PDOF Angle | 30 ° | -70 ° |
| Heading Angle | 170 ° | 90 ° |
| Calculation method: | Size and Stiffness | Size and Stiffness |
| Size Category | 3 | 2 |
| Stiffness Category | 9 | 2 |
| Vehicle Weight | 1162 kgs (2562 lbs) | 1094 kgs (2412 lbs) |



Damage Information

| | Vehicle #1 | | | Vehicle #1 Vehicle #2 | | | 2 | | | |
|--------------|------------|----|---|-----------------------|-----|-----|----|---|----|----------|
| Crush Length | 140 | cm | (| 55 | in) | 180 | cm | (| 71 | - in) |
| C1 | 2 | cm | (| 1 | in) | 8 | cm | (| 3 | in) |
| C2 | 1 | cm | (| 0 | in) | 22 | CM | (| 9 | in) |
| C3 | 3 | cm | (| 1 | in) | 10 | CM | (| 4 | in) |
| C4 | 5 | cm | (| 2 | in) | 8 | cm | (| 3 | in) |
| C5 | 4 | cm | (| 2 | in) | 2 | cm | (| 1 | in) |
| C6 | 10 | CM | (| 4 | in) | 2 | cm | (| 1 | in) |
| D | 15 | CM | (| 6 | in) | 143 | cm | (| 56 | in) |
| D' | 36 | cm | (| 14 | in) | 114 | cm | (| 45 | in) |

Vehicle Dimensions

| | Vehicle #1 | Vehicle #2 |
|---------------------|---------------------------------------|---------------------------------------|
| Data | From Size Categories | From Size Categories |
| Length | 498 cm (196 in) | - 444 cm (175 in) |
| Width | 185 cm (73 in) | 170 cm (67 in) |
| Wheelbase | 272 cm (107 in) | 244 cm (96 in) |
| Weight | 1162 kgs (2562 lbs | s) 1094 kgs (2412 lbs) |
| CG to Front of Veh | 228 cm (90 in) | 212 cm (83 in) |
| Engine Displacement | 0 liters | 0 liters |
| Moment of Inertia | 250140 kgs (22140 lbs) | 209075 kgs (18506 lbs) |
| Vehicle Mass | 1162 kgs (6.7 lb-s ² /in) | 1094 kgs (6.3 lb-s ² /in) |

TRC/IU ON-SITE AIR BAG FIRE INVESTIGATION CASE NO. - 94-16

EDCRASH RECONSTRUCTION PROGRAM RESULTS

SUMMARY OF EDCRASH RESULTS
NHTSA #8 S/N: 0266-8 Version: 4.61 Lic. User: NHTSA #8

Date: 1994 SCI 94-16

MESSAGES:

NO MESSAGES

VEHICLE # 1

| | IMPA SPEI km/ | ED | SI | PEED CHAN | NGE | BASIS FOR RESULTS |
|---|---------------------|-----|-------|-----------|---------|--|
| - | FWD | LAT | TOTAL | LONG. | LATERAL | RESULIS |
| | N/A | N/A | N/A | N/A | N/A | SPINOUT TRAJECTORIES AND CONSERVATION OF LINEAR MOMENTUM |
| | N/A | N/A | N/A | N/A | N/A | SPINOUT TRAJECTORIES AND DAMAGE |
| _ | 16.3 | | 16.2 | -14.1 | -8.1 | DAMAGE DATA ONLY |

VEHICLE # 2

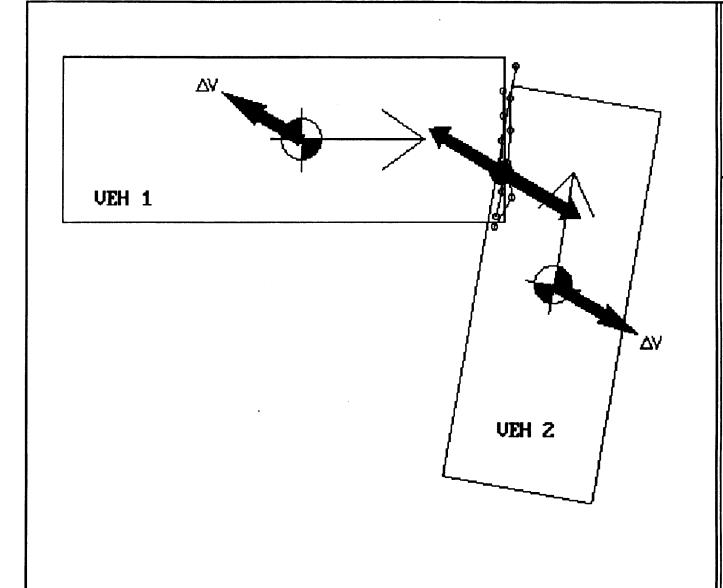
| IMPACT SPEED km/h | | SPEED CHANGE km/h | | NGE | BASIS FOR |
|-------------------------|-----|----------------------|-------|---------|--|
| FWD | LAT | TOTAL | LONG. | LATERAL | RESULTS |
| N/A | N/A | N/A | N/A | N/A | SPINOUT TRAJECTORIES AND CONSERVATION OF LINEAR MOMENTUM |
| N/A | N/A | N/A | N/A | N/A | SPINOUT TRAJECTORIES AND DAMAGE |
| | | 17.3 | -5.9 | 16.2 | DAMAGE DATA ONLY |

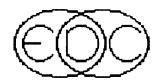
SUMMARY OF DAMAGE DATA (NOTE: '**' indicates default value)

| | Vehicle #1 | Vehicle #2 |
|---|--|--|
| CLASS / STIFFNESS CATEGORIES WEIGHT CDC DAMAGE WIDTH CRUSH DEPTH 1 CRUSH DEPTH 2 CRUSH DEPTH 3 CRUSH DEPTH 4 CRUSH DEPTH 5 CRUSH DEPTH 6 DAMAGE MIDPOINT OFFSET DAMAGE ENERGY MAGNITUDE OF PRINCIPAL FORCE DIRECTION OF PRINCIPAL FORCE | 3 / 9 1162.0 kg 01FDEW1 140.0 cm 2.0 cm 1.0 cm 3.0 cm 5.0 cm 4.0 cm 10.0 cm 15.0 cm 20452.4 Joules 121662.1 N 30.0 deg | 2 / 2 1094.0 kg 10LYEW2 180.0 cm 8.0 cm 22.0 cm 10.0 cm 8.0 cm 2.0 cm 2.0 cm 143.0 cm 11886.2 Joules 129882.2 N -70.0 deg |
| MOMENT ARM OF PRINCIPAL FORCE DAMAGE CENTROID | -81.7 cm 35.9 cm | 80.5 cm 114.3 cm |

DIMENSIONAL, INERTIAL AND CRUSH STIFFNESS PROPERTIES (NOTE: '**' indicates default value)

| | Vehicl | le #1 | | Vehic] | le #2 | |
|---------------------------|------------|---------|----|---------|---------|----|
| CG TO FRONT AXLE | 130.3 | cm | ** | 117.6 | cm | ** |
| CG TO REAR AXLE | 141.0 | cm | ** | 127.3 | cm | ** |
| TRACKWIDTH | 149.6 | cm | ** | 138.7 | cm | ** |
| YAW MOMENT OF INERTIA | 2490.0 | kg-m^2 | ** | 2081.2 | kg-m^2 | ** |
| MASS | 1160.1 | | | 1092.2 | kg | |
| BODY LENGTH FROM CG TO FF | RONT 228.1 | cm | ** | 211.6 | cm | ** |
| BODY LENGTH FROM CG TO RE | EAR -270.3 | cm | ** | -232.7 | cm | ** |
| BODY OVERALL WIDTH | 184.4 | cm | ** | 170.7 | cm | ** |
| CRUSH STIFFNESSES: | A | В | | A | В | - |
| | lb/in | lb/in^2 | 1 | b/in | lb/in^2 | |
| | 272 4 ++ | 27 7 ++ | | 40 4 ++ | 66 7 +4 | • |





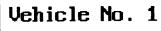
EDCRASH At Impact

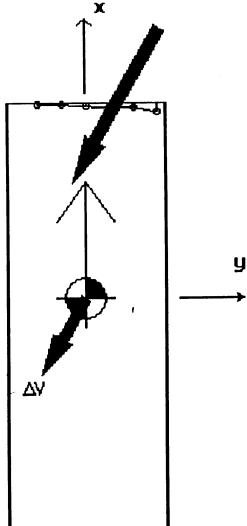
Veh #1 Veh #2 Delta-V (km/h) (BASIS: Damage)

X -14.1 -5.9 Y -8.1 16.2 Tot 16.2 17.3 PDOF 30.0 -70.0

UNITS: km/h,m,deg

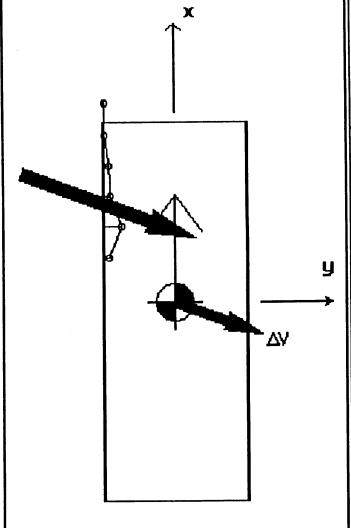
(NO SCENE DATA)



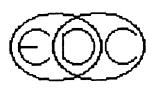


CDC/PDOF: 01FDEW1 30.0 deg Max Impact Force: 121662 N

Vehicle No. 2



CDC/PDOF: 10LYEW2 -70.0 deg Max Impact Force: 129882 N



EDCRASH Damage Profiles

Veh #1 Veh #2 Delta-V (km/h):

X -14.1 -5.9 Y -8.1 16.2 Tot 16.2 17.3

Crush Data (cm):

| JI DU LU | *CHIP * |
|--------------------|--|
| 1 4 0.0 | 180.0 |
| 15.0 | 1 4 3.0 |
| 2.0 | 8.0 |
| 1.0 | 22.0 |
| 3.0 | 10.0 |
| 5.0 | 8.0 |
| 4.0 | 2.0 |
| 10.0 | 2.0 |
| | 140.0 15.0 2.0 1.0 3.0 5.0 4.0 |

Appendix C:

NASS CDS ACCIDENT FORM

U.S. Department of Transportation National Highway Traffic Safety

ACCIDENT FORM NATIONAL ACCIDENT SAMPLING SYSTEM

| Administration | | 7.00.02 | | | CRASHWORTHINESS | DATA SYSTEM |
|--|--|-----------------------|---------------------|-------------------------------|--|--------------------|
| 1 Primary Sampl | ing Unit Number | 10 | SPE | CIAL STUDIES | S - INDICATO | RS |
| Primary Sampling Unit Number Case Number - Stratum IDENTIFICATION | | 9416 | that has b | een completed; | tudy (SS14-SS1 code 1 for the the special st | checked |
| 3. Number of Ger | | | | I5 Administrativ | ve Use | 0 |
| Forms Submitt | | 02 | 0 | io Manimistrativ | | |
| 4. Date of Accide | nt | | 7SS1 | 16 Pedestrian C | rash Data Study | 0 |
| (Month, Day, Ye | | / 9 4 | 8SS1 | 17 Impact Fires | | 0 |
| 5. Time of Accide | ent rted military time (| 1724 | 9SS` | 18 | | 0 |
| | - | or accident. | 40 000 | | | 0 |
| | dnight = 2400 known = 9999 | | 10SS1 | | | |
| | | | | NUMBER O | F EVENTS | <u> </u> |
| | | | | of Recorded Eve Accident | ents | 02 |
| | | | B | e number of even eccident. | ents which occur | red |
| | | ACCIDEN | T EVENTS | | | |
| | at occurred in the r object on the rigi | accident, code the l | owest number | ed vehicle in the | left columns and | I the other |
| Accident Event | Mahiala | Class Of | | /ehicle Number | Class Of | General Area of |
| Sequence Number | Vehicle Number | Class Of Vehicle | Area of Damage O | or bject Contacted | Vehicle | Damage |
| 12. <u>0</u> <u>1</u> | 13. <u>O</u> _ | 14. <u>0</u> 2 | 15. <u>F</u> | 16. <u>0</u> 2 | 17. 0 / | 18 |
| 19. <u>0 2</u> | 20. 🔼 📗 | 21. <u>0</u> 2 | 22. <u>R</u> | 23. <u>O 2</u> | 24. <u>0</u> <u>/</u> | 25 |
| 26. 0 3 | 27 | 28 | 29 | 30 | 31 | 32 |
| 33. 0 4 | 34. | 35. | 36. | 37. | 38. | 39. |

IF GREATER THAN FIVE EVENTS, CONTINUE CODING ON THE ACCIDENT EVENT SUPPLEMENT

40. <u>0 5</u> 41. ____ 42. ___ 43. ___ 44. ___ 45. ___ 46. ___

CODES FOR CLASS OF VEHICLE

- (00) Not a motor vehicle
- (01) Subcompact/mini (wheelbase < 254 cm)
- (02) Compact (wheelbase ≥ 254 but < 265 cm)
- (03) Intermediate (wheelbase ≥ 265 but < 278 cm)
- (04) Full size (wheelbase ≥ 278 but < 291 cm)
- (05) Largest (wheelbase ≥ 291 cm)
- (09) Unknown passenger car size
- (11) Compact utility vehicle
- (12) Large utility vehicle (≤ 4,500 kgs GVWR)
- (13) Passenger van (≤ 4,500 kgs GVWR)
- (14) Other van (≤ 4,500 kgs GVWR)
- (15) Pickup truck (≤ 4,500 kgs GVWR)
- (18) Other truck (≤ 4,500 kgs GVWR)
- (19) Unknown light truck type
- (20) School bus
- (21) Other bus
- (22) Truck (> 4,500 kgs GVWR)
- (23) Tractor without trailer
- (24) Tractor-trailer(s)
- (25) Motored cycle
- (28) Other vehicle
- (99) Unknown

CODES FOR GENERAL AREA OF DAMAGE (GAD)

CDS APPLICABLE AND OTHER VEHICLES

OTHER VEHICLES

- (0) Not a motor vehicle
- (N) Noncollision
- (F) Front
- (R) Right side
- (L) Left side
- (B) Back
- (T) Top
- (U) Undercarriage
- (9) Unknown

TDC APPLICABLE VEHICLES

- (0) Not a motor vehicle
- (N) Noncollision
- (F) Front
- (R) Right side
- (L) Left side
- (B) Back of unit with cargo area (rear of trailer or straight truck)
- (D) Back (rear of tractor)
- (C) Rear of cab
- (V) Front of cargo area
- (T) Top
- (U) Undercarriage
- (9) Unknown

CODES FOR VEHICLE NUMBER OR OBJECT CONTACTED

(01-30) — Vehicle Number

Noncollision

- (31) Overturn rollover
- (32) Fire or explosion
- (33) Jackknife
- (34) Other intraunit damage (specify):
- (35) Noncollision injury
- (38) Other noncollision (specify):
- (39) Noncollision details unknown

Collision With Fixed Object

- (41) Tree (≤ 10 cm in diameter)
- (42) Tree (> 10 cm in diameter)
- (43) Shrubbery or bush
- (44) Embankment
 - (45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post

- (50) Pole or post (≤ 10 cm in diameter)
- (51) Pole or post (> 10 cm but ≤ 30 cm in diameter)
- (52) Pole or post (> 30 cm in diameter)
- (53) Pole or post (diameter unknown)
- (54) Concrete traffic barrier
- (55) Impact attenuator
- (56) Other traffic barrier (includes guardrail) (specify):

- (57) Fence
- (58) Wall
- (59) Building
- (60) Ditch or culvert
- (61) Ground
- (62) Fire hydrant
- (63) Curb
- (64) Bridge
- (68) Other fixed object (specify):
- (69) Unknown fixed object

Collision with Nonfixed Object

- (71) Motor vehicle not in-transport
- (72) Pedestrian
- (73) Cyclist or cycle
- (74) Other nonmotorist or conveyance
- (75) Vehicle occupant
- (76) Animal
- (77) Train
- (78) Trailer, disconnected in transport
- (79) Object fell from vehicle in-transport
- (88) Other nonfixed object (specify):
- (89) Unknown nonfixed object
- (98) Other event (specify):
- (99) Unknown event or object

Appendix D:

NASS CDS VEHICLE FORMS: CASE VEHICLE

U.S. Department of Transportation

National Highway Traffic Safety Administration

GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM

| 1. Primary Sampling Unit Number 2. Case Number - Stratum 3. Vehicle Number VEHICLE IDENTIFICATION 4. Vehicle Model Year Code the last two digits of the model year (99) Unknown 5. Vehicle Make (specify): Applicable codes are found in your NASS Data Collection, Coding and Editing Manual. (99) Unknown | 11. Police Reported Alcohol Presence (0) No alcohol present (1) Yes (alcohol present) (7) Not reported (8) No driver present (9) Unknown Note: See variables 37 through 55 (Page 4) for information on Other Drugs 12. Alcohol Test Result For Driver Code actual value (decimal implied before first digit—0.xx) (95) Test refused (96) None given (97) AC test performed, results unknown (98) No driver present (99) Unknown Source: |
|--|--|
| 6. Vehicle Model (specify): NEON Applicable codes are found in your NASS Data Collection, Coding and Editing Manual. (999) Unknown | 13. Speed Limit (000) No statutory limit Code posted or statutory speed limit in kph (999) Unknown |
| 7. Body Type Note: Applicable codes may be found on the back of this page. | 25 mph x 1.6093 = 0 40 kph 14. Attempted Avoidance Maneuver (01) No avoidance actions |
| 8. Vehicle Identification Number $\frac{1 P3E547C58D}{1 2 3 4 6 6 7 8 8 10 11 12 13 14 16 16 17}$ | (02) Braking (no lockup) (03) Braking (lockup) (04) Braking (lockup unknown) (05) Releasing brakes (06) Steering left (07) Steering right (08) Braking and steering left |
| Left justify; Slash zeros and letter Z (0 and Z) No VIN—Code all zeros Unknown—Code all nines OFFICIAL RECORDS | (09) Braking and steering right (10) Accelerating (11) Accelerating and steering left (12) Accelerating and steering right |
| 9. Police Reported Vehicle Disposition (0) Not towed due to vehicle damage (1) Towed due to vehicle damage (9) Unknown | (97) No driver present (98) Other action (specify): (99) Unknown |
| 10. Police Reported Travel Speed Code to the nearest kph (NOTE: 000 means less than 0.5 kph) (160) 159.5 kph and above (999) Unknown | 15. Accident Type Applicable codes may be found on the back of page two of this field form (CO) No impact Code the number of the diagram that best describes 1 he accident circumstance (98) Other accident type (specify): (99) Unknown |
| | V07 DOES NOT EQUAL 01-49 **** |

| | OCCUPANT RELATED | 24. Rollover |
|-----|--|---|
| | Driver Presence in Vehicle (0) Driver not present (1) Driver present (9) Unknown Number of Occupants This Vehicle (00-96) Code actual number of occupants | (0) No rollover (no overturning) Rollover (primarily about the longitudinal axis) (1) Rollover, 1 quarter turn only (2) Rollover, 2 quarter turns (3) Rollover, 3 quarter turns (4) Rollover, 4 or more quarter turns (specify): |
| 18 | for this vehicle (97) 97 or more (99) Unknown Number of Occupant Forms Submitted | (5) Rolloverend-over-end (i.e., primarily about the lateral axis) (9) Rollover (overturn), details unknown |
| 10. | | OVERRIDE/UNDERRIDE (THIS VEHICLE) |
| 10 | VEHICLE WEIGHT ITEMS | _ |
| 19. | Vehicle Curb Weight Code weight to nearest 10 kilograms. (045) Less than 450 kilograms (610) 6,100 kilograms or more (999) Unknown | 25. Front Override/Underride (this Vehicle) 26. Rear Override/Underride (this Vehicle) (0) No override/underride, or not an end-to-end impact |
| 20. | | Override (see specific CDC) (1) 1st CDC (2) 2nd CDC (3) Other not automated CDC (specify): |
| | Code weight to nearest 10 kilograms. (000) Less than 5 kilograms (450) 4,500 kilograms or more (999) Unknown 25 lbs X .4536 = kgs | Underride (see specific CDC) (4) 1st CDC (5) 2nd CDC (6) Other not automated CDC (specify): |
| 21. | Towed Trailing Unit (0) No towed unit | (7) Medium/heavy truck or bus override (9) Unknown |
| | (1) Yes—towed trailing unit (9) Unknown | HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V |
| | Documentation of Trajectory Data for This Vehicle (0) No _(1) Yes | Values: (000)-(359) Code actual value (997) Noncollision (998) Impact with object - (999) Unknown |
| 23. | Post Collision Condition of Tree or Pole (For Highest Delta V) (0) Not collision (for highest delta V) with tree or pole (1) Not damaged (2) Cracked/sheared (3) Tilted <45 degrees (4) Tilted ≥45 degrees (5) Uprooted tree (6) Separated pole from base (7) Pole replaced (8) Other (specify): | 27. Heading Angle For This Vehicle 768 28. Heading Angle For Other Vehicle 990 |
| | (9) Unknown | |

| , | Highest |
|--|--|
| 29. Basis for Total Delta V (highest) | 32. Lateral Component of Delta V <u>O</u> O O 8 |
| Delta V Calculated (1) CRASH program—damage only routine | -8 Nearest kph (highest) |
| (2) CRASH program—damage and trajectory | |
| routine (3) Missing vehicle algorithm | Nearest kph (secondary) |
| Delta V Not Calculated (4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of | (NOTE:000 means greater than -0.5 kph and less than +0.5 kph) (±160) ±159.5 kph and above (999) Unknown |
| collision conditions. (5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH | 33. Energy Absorption <u>O 2 0</u> , <u>5</u> 0 0 <u>20453</u> Nearest 100 joules (highest) |
| program or other acceptable reconstruction | |
| technique, regardless of adequacy of damage data. | Nearest 100 joules (secondary) |
| (6) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available. | (NOTE: 0000 means less than 50 joules) (9997) 999,650 joules or more (9999) Unknown |
| | ■ 34. Confidence In Reconstruction Program |
| COMPUTER GENERATED DELTA V Highest 30. Total Delta V Nearest kph (highest) Nearest kph (secondary) | Results (For Highest Delta V) (0) No reconstruction (1) Collision fits model — results appear reasonable (2) Collision fits model — results appear high (3) Collision fits model — results appear low (4) Borderline reconstruction — results appear reasonable |
| (NOTE: 000 means less than | 35. Type of Vehicle Inspection |
| 0.5 kph) (160) 159.5 kph and above (999) Unknown | (0) No inspection (1) Complete inspection (2) Partial inspection (specify): |
| 31. Longitudinal Component of Delta V | 36. Is this an AOPS Vehicle? (0) No (1) Yes - researcher determined |
| Nearest kph (secondary) | (2) VIN determined air bag system |
| (NOTE:000 means greater than | (3) VIN determined automatic (passive) belts (4) VIN determined air bag and automatic (passive) belts |
| | THIS VEHICLE? [] YES [] NO AM SUMMARY INCLUDED? [] YES [] NO |

| Vatio | onal Accident Sampling System-Crashworthmess Date | |
|-------|--|---|
| 37. | Police Reported Other Drug Presence (0) No other drug(s) present (1) Yes [other drug(s) present] | DRUG EVALUATION CLASSIFICATION OTHER DRUGS TEST RESULTS FOR DRIVER |
| | (7) Not reported (8) No driver present (9) Unknown | DEC Specimen Test Test Results Results |
| ٠ | • | Narcotic Drug 40. |
| 38. | Police Reported Drug Evaluation Classification (DEC) Test For Driver (0) No DEC process available or given (1) DEC process given, results known (2) DEC process given, results unknown | Cannabinoid Drug Phencyclidine (PCP) Inhalant Drug Other Drug (Excluding 48. ○ 49. ○ 50. ○ 51. ○ 51. ○ 52. ○ 53. ○ 54. ○ 55. ○ |
| | (3) DEC process available, unknown if given(8) No driver present | Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash) |
| 39. | Other Drug Specimen Test Type For Driver | Codes For DEC Test Results (0) No DEC test given |
| | (0) No specimen test given (1) Blood test (2) Urine test (3) Other specimen tests (specify): | (1) Passed DEC test (2) Failed DEC test (3) DEC test given—results unknown (8) No driver present (9) Unknown if DEC test given |
| | (7) Unspecified specimen test(8) No driver present(9) Unknown if specimen test given | Codes for Specimen Test Results (0) No specimen test given |
| | | (1) Drug not found in specimen (2) Drug found in specimen (7) Specimen test given, results unknown or not obtained (8) No driver present (9) Unknown if specimen test given |
| | | |
| | | • |
| | | |
| | | |
| | | . \ |
| | | |

| OTHER DATA | 61. Rollover Initiation Object Contacted |
|--|---|
| 56. Driver's Zip Code | |
| (00000) Driver not present (00001) Driver not a resident of U.S. or territories Code actual 5-digit zip code (99999) Unknown | 62. Location on Vehicle Where Initial Principal Tripping Force Is Applied (0) No rollover (1) Wheels/tires (2) Side plane |
| 57. Driver's Race/Ethnic Origin (0) Driver not present (1) White (non-Hispanic) (2) Black (non-Hispanic) (3) White (Hispanic) (4) Black (Hispanic) (5) American Indian, Eskimo or Aleut (6) Asian or Pacific Islander (8) Other (specify): | (3) End plane (4) Undercarriage (5) Other location on vehicle (specify): (8) Non-contact rollover forces (specify): (9) Unknown |
| (9) Unknown 58. Vehicle Special Use (This Trip) (0) No special use (1) Taxi (2) Vehicle used as school bus (3) Vehicle used as other bus (4) Military (5) Police (6) Ambulance | (0) No rollover (1) Roll right - primarily about the longitudinal axis (2) Roll left - primarily about the longitudinal axis (5) End-over-end (i.e., primarily about the lateral axis) (9) Unknown roll direction |
| (7) Fire truck or car | PRECRASH DATA |
| (8) Other (specify): | THECHASH DATA |
| (9) Unknown | 64. Pre-Event Movement (Prior to Recognition of Critical Event) |
| ROLLOVER DATA | (O4) Coine assists |
| If GV07 (Body Type) ≠ 1-49, leave GV59-GV63 blank. If GV24 (Rollover) = 0, then GV59-GV63 must equal 0. If GV24 = 9, then GV59-GV63 must equal 9. | (01) Going straight (02) Slowing or stopping in traffic lane (03) Starting in traffic lane (04) Stopped in traffic lane (05) Passing or overtaking another vehicle |
| 59. Rollover Initiation Type (O) No rollover (1) Trip-over (2) Flip-over (3) Turn-over (4) Climb-over (5) Fall-over (6) Bounce-over (7) Collision with another vehicle (8) Other rollover initiation type specify): (9) Unknown rollover initiation type | (06) Disabled or parked in travel lane (07) Leaving a parking position (08) Entering a parking position (09) Turning right (10) Turning left (11) Making a U-turn (12) Backing up (other than for parking position) (13) Negotiating a curve (14) Changing lanes (15) Merging (16) Successful avoidance maneuver to a previous critical event (97) Other (specify): |
| 60. Location of Rollover Initiation (0) No rollover | (98) No driver present (99) Unknown |
| (1) On roadway | |
| (2) On shoulder—paved (3) On shoulder—unpaved | |
| (4) On roadside or divided trafficway median (9) Unknown | |

| PRECRASH DA | TA (OUTHITACA) |
|--|--|
| 65. Critical Precrash Event | Pedestrian or Pedalcyclist, or Other Nonmotorist |
| 65. Critical Precrash Event (O) | (80) Pedestrian in roadway |
| The state of the state of Company Comp | (81) Pedestrian approaching roadway |
| This Vehicle Loss of Control Due To: | (82) Pedestrian—unknown location |
| (01) Blow out or flat tire | (83) Pedalcyclist or other nonmotorist in roadway |
| (02) Stalled engine | |
| (03) Disabling vehicle failure (e.g., wheel fell off) | (specify): |
| (specify): | roadway (specify): |
| (04) Non-disabling vehicle problem (e.g., hood flew | (85) Pedalcyclist or other nonmotorist—unknown |
| up) (specify): | location (specify): |
| (05) Poor road conditions (puddle, pot hole, ice, etc.) | location (specify). |
| (specify): | Object or Animal |
| (06) Traveling too fast for conditions | (87) Animal in roadway |
| (08) Other cause of control loss (specify): | (88) Animal approaching roadway |
| (OO) Halana and operated loop | (89) Animal—unknown location |
| (09) Unknown cause of control loss | (90) Object in roadway |
| This Mahiala Traveline | (91) Object approaching roadway |
| This Vehicle Traveling (10) Over the lane line on left side of travel lane | (92) Object—unknown location |
| (10) Over the lane line on left side of travel lane | (32) Object—discipant location |
| (11) Over the lane line on right side of travel lane | (98) Other critical precrash event (specify): |
| (12) Off the edge of the road on the left side | (90) Other chical preciasir event (specify). |
| (13) Off the edge of the road on the right side | (99) Unknown |
| (14) End departure | (99) Unknown |
| (15) Turning left at intersection | |
| (16) Turning right at intersection | For Competing Assigns Assembled and variable GV14 |
| (17) Crossing over (passing through) intersection | For Corrective Actions Attempted see variable GV14 |
| (19) Unknown travel direction | (Attemped Avoidance Manuever) |
| Other Motor Vehicle In Lane | |
| (50) Stopped | 66. Precrash Stability After Avoidance Maneuver |
| (51) Traveling in same direction with lower speed | |
| (i.e., lower steady speed or decelerating) | (O) No avoidance maneuver |
| (52) Traveling in same direction with higher speed | (1) Tracking |
| (53) Traveling in opposite direction | (2) Skidding longitudinally—rotation less than 30 |
| (54) In crossover | degrees |
| (55) Backing | (3) Skidding laterally—clockwise rotation |
| (59) Unknown travel direction of other motor vehicle | (4) Skidding laterally—counterclockwise rotation |
| in lane | (7) Other vehicle loss-of-control (specify): |
| | |
| Other Motor Vehicle Encroaching Into Lane | (8) No driver present |
| (60) From adjacent lane (same direction)—over left | (9) Precrash stability unknown |
| lane line | |
| (61) From adjacent lane (same direction)—over right | |
| lane line | 67. Precrash Directional Consequences of |
| (62) From opposite direction—over left lane line | Avoidance Maneuver (Corrective Action) |
| (63) From opposite direction—over right lane line | (O) No avoidance maneuver |
| (64) From parking lane | (1) Vehicle stayed in travel lane where avoidance |
| (65) From crossing street, turning into same | maneuver was initiated |
| direction | 1 |
| (66) From crossing street, across path | (2) Vehicle stayed on roadway but left travel lane |
| _ (67) From crossing street, turning into opposite | where avoidance maneuver was initiated |
| direction | (3) Vehicle stayed on roadway, not known if left |
| (68) From crossing street, intended path not known | travel lane where avoidance maneuver was |
| (70) From driveway, turning into same direction | initiated |
| (71) From driveway, across pat 1 | (4) Vehicle departed roadway |
| (72) From driveway, turning into opposite direction | (5) Avoidance maneuver initiated off roadway |
| (73) From driveway, intended path not known | (8) No driver present |
| (74) From entrance to limited access highway | (9) Directional consequences unknown |
| (78) Encroachment by other vehicle—details | ,_, |
| unknown | |
| +++ IE THE CDC ABBI ICADI E VEHICI E IA | AS NOT INSPECTED (I.E., GV35 = 0), *** |
| | R AND INTERIOR VEHICLE FORMS. |

*** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE *** THE EXTERIOR VEHICLE, INTERIOR VEHICLE, OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.



U.S. Department of Transportation

| O.G. Department of Transportation | |
|-----------------------------------|------|
| National Highway Traffic Safety | EXTE |
| Administration | |
| | |

EXTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM

| 1. Prima | ry Sampling Unit Nu | mber | 10 | <u>)</u> 3. | Vehicle | e Numbe | Br | | | 0 | 1 |
|--|--|------------------------------|----------------------------|---------------------|---------------------|--|---------------------|-----------------------|---------------------|--|--------------------|
| 2. Case | Number - Stratum | 9 | 411 | 2 | | | | | | | |
| | | ١ | VEHICLE I | DENTI | FICATI | ON | | | | | |
| VIN | P 3 E 5 L | 17C | <u>5 5 1</u> | <u></u> | | | | | | ear 9 | 5 |
| Vehicle Make (specify): Plymouth Vehicle Model (specify): NEON | | | | | | | | | | | |
| | | | | CATO | | | | | | | |
| | e end of the damage amaged axle for side | | t to the veh | icle long | gitudina | center | line or b | umper o | corner f | or end in | npacts |
| | mpact No. | | of Direct Da | mage | | | Lo | cation | of Field | L | |
| 0 | (R)BC | LOVER | 110 c | M. | | ACD | 055 | fro | $n + \frac{1}{2}$ | bum | per |
| D | | | | | Axle | .,. | | | | | |
| B) 11 fender 12 cm < Axe | | | | | | | | | | | |
| | V / | | SH PROFI | | | METER | S | | | | |
| | dentify the plane at sill, etc.) and label at | | | | taken | (e.g., at | bumper | , above | bumpe | er, at sill, | above |
| l | • | | | | | | | | | | |
| · | Measure and docume | ent on the v | ehicle diagr | am the | location | of max | imum cı | rush. | | | 1 |
| | Measure C1 to C6 fr | om driver to | passenger | side in | front or | rear im | pacts ar | nd rear t | o front | in side | |
| | | | | _ | | | | | | | |
| 1 | ree space value is d the individual C locat | lefined as th tions. This | ne distance may include | betweer the foli | n the ba lowing: | seline a bumper | nd the d lead, b | original l umper t | oody co aper, si | intour ta de protri | ken at usion, |
| | side taper, etc. Reco | ord the valu | e for each (| C-measu | rement | and ma | ximum (| crush. | | | |
| ı | Jse as many lines/co | olumns as n | ecessary to | describ | e each (| damage | profile. | | | | |
| Specific | Plane of Impact | Direct D | | Field | (| | | | _ | WAX | |
| Impact Number | C-Measurements | Width (CDC) | Max Crush | L | C, | C, | C ₃ | C₄ | C _e | C _e | ±D |
| 01 | FRONT Bunger | 110 | 10cm | 138 | 20 | 8 | 5 | 6 | 9 | 28 | +15 |
| | FIZEE | | | | 18 | 7 | 2 | 2 | 4 | 18 | |
| | FINAL | | _ | | 2 | 1 | 3 | 4 | 5 | 10 | +150 |
| | | | | | | | ļ | | | <u> </u> | |
| | | | 2 | -77 | | | | | | | |
| OV | | 75cm | 2 | 77 | | | | | | <u> </u> | |
| | | 16cm | | 26 | | | | | | | \vdash |
| <u> </u> | | | | | | | | | | | \vdash |
| | | | | | | | | | | | \vdash |
| | | | | | | | | | | | |
| | | | | | | | | | | 1 | |
| | | | | | | | | | | | |

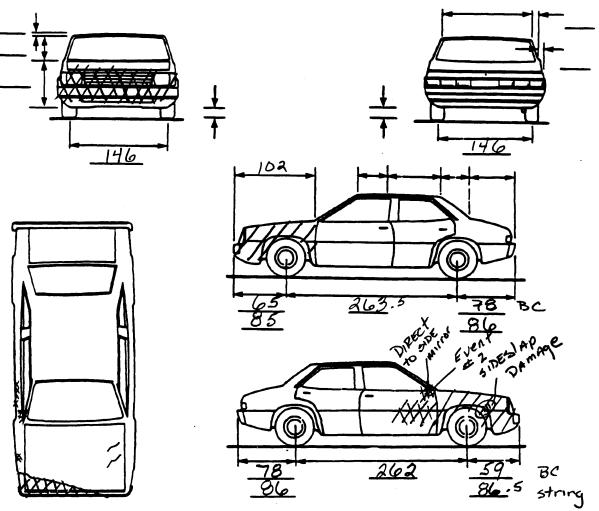
ORIGINAL SPECIFICATIONS WORK SHEET

| Wheelbase | 104. | inches | x 2.54 | = | <u> 2 6 4</u> cm |
|--------------------------|--------------|--------|---------|---|------------------|
| Overall Length | 171.8 | inches | x 2.54 | = | <u>436</u> cm |
| Maximum Width | _67.2 | inches | x 2.54 | = | <u> </u> |
| Curb Weight | <u>2,320</u> | pounds | x .4536 | - | |
| Average Track | _57.4 | inches | x 2.54 | - | 146 cm |
| Front Overhang | | inches | x 2.54 | = | cm |
| Rear Overhang | | inches | x 2.54 | = | cm |
| Undeformed End Width | | inches | x 2.54 | = | cm |
| Engine Size: cyl./displ. | | сс | x .001 | = | <i>i</i> L |
| | | CID | x .0164 | = | 2.0 L |

| / | 2 | • |
|---|---|----|
| | 4 | 1_ |
| | 4 | L |
| | | |

VEHICLE DAMAGE SKETCH **ORIGINAL SPECIFICATIONS** WHEEL STEER ANGLES TIRE-WHEEL DAMAGE (For locked front wheels or a. Rotation physically b. Tire Wheelbase displaced rear axles only) deflated restricted RF ± 0 Overall Length cm Maximum Width RR ± **Curb Weight** Within ± 5 degrees Average Track (1) Yes (2) No (8) NA (9) Unk. **DRIVE WHEELS** Front Overhang ØFWD □ RWD □ 4WD Rear Overhang TYPE OF TRANSMISSION **Undeformed End Width Approximate** Engine Size: cyl./displ. Cargo Weight □ Automatic kg

MEASUREMENTS IN CENTIMETERS



NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of strictions, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

| | | | CDC V | VORKSHE | 3 | | | |
|----------|---|--------------------|-------------|--------------|---------------------------|-----------------|---------------------------------------|--------------|
| | | С | ODES FOR C | DBJECT CON | TACTED | | | |
| (01-30) | - Vehicle Nu | mber | | (57 | 7) Fence | | | |
| (0.00) | 00,,,0,0 | | | (58 | 3) Wall | | | |
| Noncoli | ision | | | | 9) Building | | | |
| (31) | Overturn - ro | ollover | | , |) Ditch or | culvert | | |
| | Fire or explosi | on | | • - |) Ground | | | |
| | Jackknife | | | | 2) Fire hydr | rant | | |
| (34) | Other intrauni | t damage (specif | y): | | 3) Curb 4) Bridge | | | |
| (25) | Nama linian is | | | | | ed object (s | specify). | |
| | Noncollision in Other noncolli | | | ,0, | of Culei IIA | | , pec., y , . | · |
| (30) | Other noncom | sion (specify). | | (69 | Unknow | n fixed obje | ct | |
| (39) | Noncollision - | - details unknov | /n | _ | | | | |
| (55) | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | Collis | ion with No | nfixed Obje | ct | |
| Collisio | n With Fixed O | bject | | | | ehicle not in | -transport | |
| (41) | Tree (≤ 10 cr | m in diameter) | | | 2) Pedestria | | | |
| (42) | Tree (> 10 cr | m in diameter) | | | 3) Cyclist o | | | |
| | Shrubbery or | bush | | (74 | 4) Other no | onmotorist o | or conveyand | :e |
| (44) | Embankment | | | 1991 | -) Vahiala | | · · · · · · · · · · · · · · · · · · · | |
| 445) | 5 | | l: | | 5) Vehicle (6) Animal | occupant | | |
| (45) | Breakaway po | ele or post (any o | liameter) | • • • | 7) Train | | | : |
| Nonbro | akaway Pole o | Poet | | | | disconnected | d in transpor | + |
| | | ≤ 10 cm in dian | neter) | | | | icle in-trans | |
| | | > 10 cm but ≤ | | | | | ct (specify): | |
| (51) | diameter) | | | ,- | | | | |
| (52) | - | > 30 cm in dian | neter) | (8: | 9) Unknow | n nonfixed | object | |
| | | diameter unknov | | | | | | |
| | • | | | (9) | B) Other ev | ent (specify | /): | |
| | Concrete traff | | | | | | | |
| | Impact attenu | | | (9: | 9) Unknow | n event or o | object | |
| (56) | | parrier (includes | guardrail) | | | | | |
| | (specify): | | | - | | | | |
| | | DEFORMA' | TION CLASS | SIFICATION E | Y EVENT N | UMBER | | |
| | | | | | (4) | /E\ | | |
| Accident | • | (1) (2) | | | (4) Specific | (5) Specific | (6) | |
| Event | • | Direction | Incremental | (3) | Longitudinal | Vertical or | Type of | (7) |
| Sequence | | of Force | Value of | Deformation | or Lateral | Lateral | Damage | Deformation |
| Number | Contacted | (degrees) | Shift | Location | Location | Location | Distribution | Extent |
| 01 | 02 | + 30 | | E | D | C | (4) | OI |
| <u> </u> | | | | | <u> </u> | <u> </u> | $\frac{\omega}{3}$ | - |
| 02 | 02 | +80 | | K. | Y | 1-1 | 5 | 01 |
| <u> </u> | | | | | | | | |
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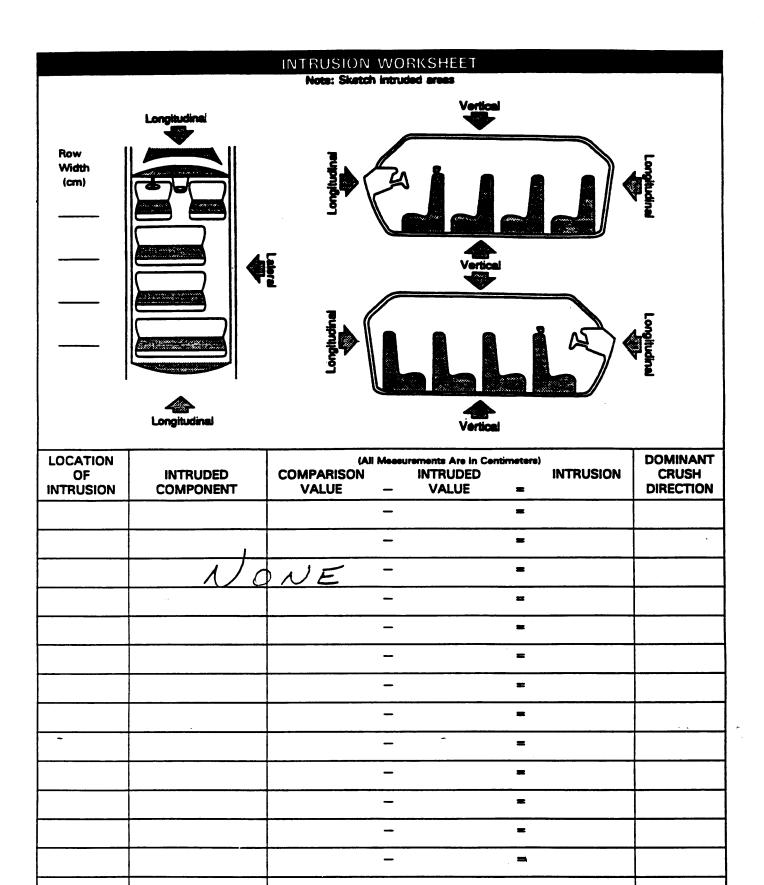
| | | | ON DEFORMA | | | | | | | |
|--|--|--------------------------------|--|--------------------------------------|----------------------------------|--|------------------------|--|--|--|
| HIGHEST D | DELTA "V" | | | | | | | | | |
| Accident Event Sequence Number | Object Contacted | (1) (2) Directio of Forc | n Deformation | (4) Longitudinal or Lateral Location | (5) Vertical or Lateral Location | (6) Type of Damage Distribution | (7) Deformation Extent | | | |
| 4. 0 1 | 5. <u>0</u> <u>2</u> | 6 | L 7. <u>F</u> | 8 | 9. <u>E</u> | 10. <u>W</u> | 11.0/ | | | |
| Second Highest Delta "V" | | | | | | | | | | |
| 12. <u>0</u> 2 | 13. <u>0</u> 2 | 14 | <u>3</u> 15. <u>R</u> | 16. <u> </u> | 17. <u>H</u> | 18. <u>W</u> | 19. 🛆 📗 | | | |
| | | CR | USH PROFILE | IN CENTIN | /IETERS | | | | | |
| CRUSH PROFILE IN CENTIMETERS The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.) | | | | | | | | | | |
| HIGHEST [| DELTA "V" | | | | | | | | | |
| 20. | 21. | | | | | C _e | 22. | | | |
| 140 | 002 | 001 | 003 | 004 | 005 <u>0</u> | 2/0 | 015 | | | |
| Second Hi | ghest Delta "V | / n | | | | | · | | | |
| 23. | 24. | | | C | | C _e | 25. | | | |
| | | | | | | | + | | | |
| | Cs Documented Coded on The ted File? | <u></u> | 7. Researcher's As of Vehicle Dispo (0) Not towed of vehicle dam (1) Towed due vehicle dam (9) Unknown | osition due to age to | | al Wheelbase Code to the nearest centim Unknown | <u>264</u> eter | | | |
| | _ centimeters | | | | | | | | | |

| 29. | Is This A Multi-Stage Manufactured Vehicle And/Or A Certified Altered Vehicle? | 34. Fuel Tank-1 Location |
|-----|---|--|
| | (0) No post manufacturer modifications (1) Yes - post manufacturer modifications | 35. Fuel Tank-2 Location (0) No fuel tank |
| | (specify): | (1) Aft of center of the rear wheels (rear axle) centered (2) Aft of center of the rear wheels (rear axle) |
| | (Include photograph of CERTIFICATION PLACARD in case report) | left side (3) Aft of center of the rear wheels (rear axle) |
| | (9) Unknown if vehicle is modified | right side (4) Forward of center of the rear wheels (rear axle) centered |
| 30. | Fire Occurrence (0) No fire | (5) Forward of center of the rear wheels (rear axle) left side |
| | Yes, fire occurred | (6) Forward of center of the rear wheels (rear axle) right side (7) Over center of the rear wheels (rear axle) |
| | (1) Minor (2) Major (9) Unknown | (8) Other (specify): |
| | Origin of Fire | (9) Unknown |
| 31. | Origin of Fire (0) No fire (1) Vehicle exterior (front, side, back, top) | 36. Fuel Tank-1 Filler Cap Location |
| | (2) Exhaust system (3) Fuel tank (and other fuel retention | 37. Fuel Tank-2 Filler Cap Location (0) No fuel tank |
| | system parts) (4) Engine compartment | (1) On back plane (2) Aft of center of the rear wheels (rear axle) on left side plane |
| | (5) Cargo/trunk compartment(6) Instrument panel(7) Passenger compartment area | (3) Aft of center of the rear wheels (rear axle) on right side plane |
| | (8) Other location (specify): Instrument Pane Passing | (4) Forward of center of the rear wheels (rear axle) on left side plane (5) Forward of center of the rear wheels (rear |
| | (9) Unknown PANE PASS Day Nodwie | axle) on right side plane (6) Over the center of the rear wheels (rear axle) |
| | Type of Fuel Tank-1 | on left side plane (7) Over the center of the rear wheels (rear axle) |
| 33. | Type of Fuel Tank-2 (0) No fuel tank (electrical vehicle) (1) Metallic | on right side plane (8) Other (specify): (9) Unknown |
| | (2) Non-metallic (9) Unknown | / |
| | | 38. Fuel Tank-1 Damage |
| | | 39. Fuel Tank-2 Damage (0) No fuel tank |
| 1 | | (1) No damage to fuel tank (2) Deformed, no seam failure |
| | | (3) Deformed, no seam failure |
| | | (4) Punctured |
| | | (5) Lacerated (ripped) (6) Abraded (scraped) |
| | | (7) Filler neck separation from the fuel tank (8) Other damage (specify): |
| | - | (9) Unknown |
| | | |

| | | the state of the s |
|-----|--|--|
| 40. | Location of Fuel System-1 Leakage | 44. Is This Vehicle Equipped With More Than Two Fuel Tanks? |
| 41. | Location of Fuel System-2 Leakage (0) No fuel tank | (0) No (one or two tanks only) |
| | (1) No fuel leakage | Yes - More Than Two Tanks |
| | Primary Area Of Leakage | (1) Yes <u>no damage</u> to any tank or filler cap and <u>no fuel system leakage</u> |
| 1 | (2) Tank | (2) Yes no damage to any tank or filler |
| | (3) Filler neck | cap but there is fuel system leakage |
| | (4) Cap | (specify leakage location): |
| | (5) Lines/pump/filter | |
| | (6) Vent/emission recovery | (3) Yes damage to an additional tank or |
| | (8) Other (specify): | filler cap and there is fuel system leakage (specify the following): |
| | (9) Unknown | Type of tank |
| | | Tank location |
| | | Filler cap location |
| 42. | Fuel Type-1 | Tank damage |
| | <u> </u> | Location of leakage |
| 43. | Fuel Type-2 | Type of fuel |
| 70. | | Type of fuel(9) Unknown if more than two tanks |
| | Single Fuel Type | (b) Onknown i more than two tames |
| | (00) No fuel tank | |
| | (01) Gasoline | |
| | (02) Diesel | COMMENTS |
| ļ | (03) CNG (Compressed Natural Gas) | |
| | (04) LPG (Liquid Petroleum Gas) also | |
| | | |
| | known as Propane | |
| | (05) LNG (Liquid Natural Gas) | |
| | (06) Methanol (M100 or M85) | |
| | (07) Ethanol (E100 or E85) | |
| | (08) Other (Hydrogen or others) (specify): | · I |
| | | |
| | Electric Powered or Electric/Solar | |
| | Powered Vehicles | |
| | | |
| | (10) Lead Acid Battery | |
| | (11) Nickel-Iron Battery | |
| | (12) Nickel-Cadmium Battery | |
| | (13) Sodium Metal Chloride Battery (14) Sodium Sulfur Battery | |
| | (18) Other (Specify): | |
| | (10) Other (Specify): | |
| | (98) Other Hybrid (specify): | |
| | (30) Other Hybrid (specify). | |
| - | | |
| | (99) Unknown fuel type | |
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| ** | * STOP: IF THE CDS APPLICABLE VEHICLE V | VAS NOT TOWED AND WAS NOT AN AOPS *** |
| | | |
| | U.E., GVUS = U UK S AND GV30 = U), DU NU | T COMPLETE THE INTERIOR VEHICLE FORM. |
| | | |
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| | | |



| National Highway Traffic Safety | INTERIOR VE | HICLE FORM NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINGSS DATA SYSTEM |
|---|-------------------------|--|
| Administration | / λ | GLAZING |
| 1. Primary Sampling Unit Number | 70 | Glazing Damage from Impact Forces |
| 2. Case Number - Stratum | 9416 | 15. WS 0 16. LF 0 17. RF 0 18. LR 19. RR |
| 3. Vehicle Number | 61 | 20. BL 21. Roof 8 22. Other 8 |
| INTEGRITY | | |
| ii Tegiii T | | (0) No glazing damage from impact forces (2) Glazing in place and cracked from impact forces |
| 4. Passenger Compartment Integri (00) No integrity loss | ny <u>0</u> <u>0</u> | (3) Glazing in place and holed from impact forces (4) Glazing out-of-place (cracked or not) and not holed from impact forces |
| Yes, Integrity Was Lost Through | | (5) Glazing out-of-place and holed from impact forces |
| (O1) Windshield (O2) Door (side) | | (6) Glazing disintegrated from impact forces (7) Glazing removed prior to accident |
| (03) Door/hatch (back door) | | (8) No glazing |
| (O4) Roof | | (9) Unknown if damaged |
| (05) Roof glass (06) Side window | | _ |
| (07) Rear window (becklight) | | Glazing Damage from Occupant Contact |
| (O8) Roof and roof glass | | 23. WS O 24. LF O 25. RF O 26. LR O 27. RR |
| (09) Windshield and door (side) (10) Windshield and roof | | |
| (11) Side and rear window (side windo | w and backlight) | 28. BL <u>O</u> 29. Roof <u>O</u> 30. Other <u>O</u> |
| (12) Windshield and side window | | (O) No occupant contact to glazing or no glazing |
| (13) Door and side window (98) Other combination of above (spec | ifv): | (1) Glazing contacted by occupant but no glazing damage |
| | | (2) Glazing in place and cracked by occupant contact (3) Glazing in place and holed by occupant contact |
| (99) Unknown | | (4) Glazing out-of-place (cracked or not) by occupant |
| | | contact and not holed by occupent contact (5) Glazing out-of-place by occupent contact and holed by |
| 1 | | occupant contact |
| Door, Tailgate or Hatch Opening | | (6) Glazing disintegrated by occupant contact |
| 5. LF / 6. RF / 7. LR / 8. R | R / 9. TG/H <u></u> | (9) Unknown if contacted by occupent |
| (0) No door/gate/hatch | | If No Glazing Damage <i>And</i> No Occupant Contact or No Glazing, Then Code IV31 Through IV46 As Ø |
| (1) Door/gate/hatch remained closed a | and operational | Glazing, Their code from the case in the c |
| (2) Door/gete/hetch came open during | collision | Type of Window/Windshield Glazing |
| (3) Door/gate/hatch jemmed shut (8) Other (specify): | | 1 " |
| (9) Unknown | | 31. WS 0 32. LF 33. RF 0 34. LR 0 35. RR 0 |
| (S) OIKROWII | | 36. BL <u>O</u> 37. Roof <u>O</u> 38. Other <u>O</u> |
| | | (0) No glazing contact and no damage, or no glazing |
| Damage/Failure Associated with Do Opening in Collision. If IV05-IV09 | or, Tailgate or Hatch | (1) AS-1 — Laminated (2) AS-2 — Tempered |
| 1 ' - | | (3) AS-3 — Tempered-tinted |
| 10. LF $\underline{\phi}$ 11. RF $\underline{\phi}$ 12. LR $\underline{\phi}$ 13. | . RR <u>O</u> 14. TG/HO | (4) AS-14 — Gless/Plastic (8) Other (specify): |
| (O) No door/gate/hatch or door not op | ened | (9) Unknown |
| Door, Tailgate or Hatch Came Open Do | uring Collision | |
| (1) Door operational (no damage) | _ | Window Precrash Glazing Status |
| (2) Latch/striker failure due to damego (3) Hinge failure due to damego | | 39. WS <u>0</u> 40. LF <u>0</u> 41. RF <u>0</u> 42. LR <u>0</u> 43. RR <u>0</u> |
| (4) Door structure failure due to dame | T | |
| (5) Door support (i.e., piller, sill, roof of etc.) failure due to damage | eide rail, | 44. BL <u>O</u> 45. Roof <u>O</u> 46. Other <u>O</u> |
| (6) Latch/striker and hinge failure due | to demege | (O) No glazing contact and no damage, or no glazing |
| (8) Other failure (specify): | | (1) Fixed |
| (9) Unknown | | (2) Closed (3) Partially opened |
| | | (4) Fully opened |
| 1 | | 19) Helmourn |



| | | | OCCU | PANT AF | REA INTRUSION |
|----------------------------|---------------------------|------------------------|--------------------------|---------------------------------------|--|
| Note | : If no intrusion | ns, leave varial | oles IV47-IV | /86 blank. | INTRUDING COMPONENT |
| 1. 1. 1. 4. 1. 4. 5. | Location of | intruding Component | | Dominent Crush Direction | Interior Components (01) Steering assembly (02) Instrument panel left |
| | ····(IIIIIIIIIII | | | | (03) Instrument panel center |
| 1 ~~ | 47 | 40 | 40 | EO | (04) Instrument panel right (05) Toe pan |
| 151 | 47 | . 40 | - 43 | 30 | (06) A (A1/A2)-pillar |
| | | | | | (07) B-pillar (08) C-pillar |
| 2nd | 51 | 52. | 53. | 54. | (09) D-pillar |
| | | | | | (10) Door panel (side) |
| | - | | | | (12) Roof (or convertible top) (13) Roof side rail |
| 3rd | 55 | 56 | _ 57 | 58 | (14) Windshield |
| | | | | | (15) Windshield header (16) Window frame |
| | | | | | (17) Floor pan (includes sill) |
| 4th | 59 | 60 | _ 61 | 62 | (18) Backlight header |
| | | | | | (19) Front seat back (20) Second seat back |
| 5th | 63 | 64. | 65. | 66. | (21) Third seat back |
| 541 | | | | · · · · · · · · · · · · · · · · · · · | (22) Fourth seat back (23) Fifth seat back |
| | | | | | (24) Seat cushion |
| 6th | 67 | 68 | 69 | 70 | (25) Back door/panel (e.g., tailgate) |
| | | | | | (26) Other interior component (specify): |
| 7th | 71. | 72 . | 73 . | 74 | (27) Side panel - forward of the A (A2)-pillar (28) Side panel - rear of the A (A2)-pillar |
| | | | | | Exterior Components |
| | | | | | (30) Hood |
| 8th | 75 | | _ 77 | 78 | (31) Outside surface of this vehicle (specify): |
| | | | | | (32) Other exterior object in the environment (specify): |
| 9th | 79 | 80 | _ 81 | 82 | (33) Unknown exterior object |
| | | | | | (97) Catastrophic (98) Intrusion of unlisted component(s) |
| 1 Out | 02 | 94 | OE . | 06 | (specify): |
| ıum | 63 | . 84 | _ 85 | 80 | (99) Unknown |
| LOCA | TION OF INTE | RUSION | | | MAGNITUDE OF INTRUSION |
| Fro | nt Seat | Fourth | Seat | | (1) ≥ 3 centimeters but < 8 centimeters (2) ≥ 8 centimeters but < 15 centimeters |
| (| 11) Left | (41) | Left | | (3) ≥ 15 centimeters but < 30 centimeters |
| | 12) Middle 13) Right | | Middle Right | | (4) ≥ 30 centimeters but < 46 centimeters |
| | _ | | | | (5) ≥ 46 centimeters but < 61 centimeters (6) ≥ 61 centimeters |
| | cond Seat (21) Left | | Catastropi Other enci | | (7) Catastrophic |
| ĺ | 22) Middle | (30) | area (spec | | (9) Unknown |
| (| (23) Right | (00) | Unknown | | |
| | ird Seat | (33) | DIMINAU | | DOMINANT CRUSH DIRECTION |
| | 31) Left 32) Middle | | | | (1) Vertical (2) Longitudinal |
| | (32) Middle (33) Right | | | | (3) Lateral |
| - | | | | | (7) Catastrophic (9) Unknown |

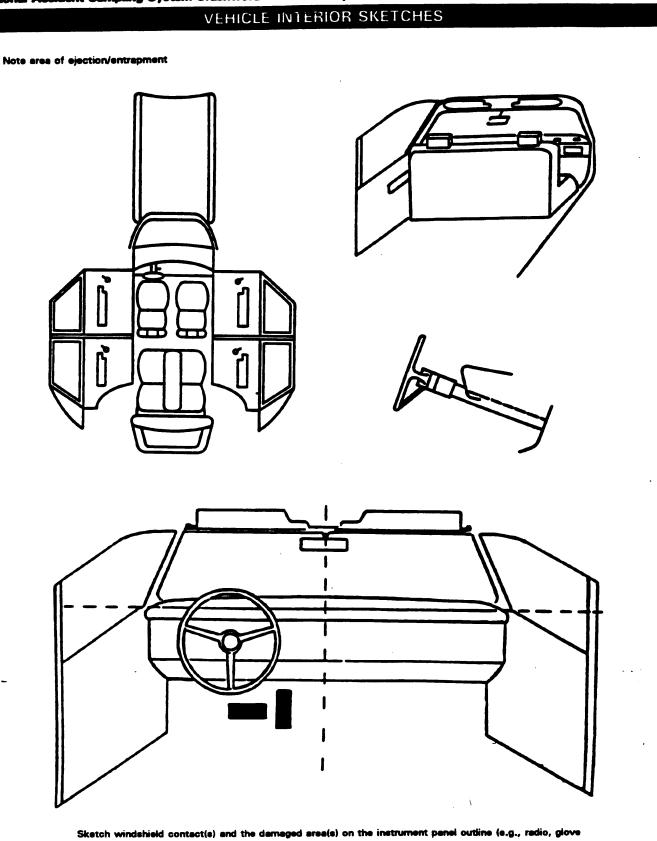
| ST | EERING RII | M SPOKE DEFC | RMATION | J | | | | | |
|------------------|---------------------------------------|--------------|---------|-------------|---|--|--|--|--|
| | (All Measurements Are in Contimeters) | | | | | | | | |
| COMPARISON VALUE | _ [| DAMAGE VALUE | = | DEFORMATION | | | | | |
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| STEERING COLUMN | 93. Location of Steering Rim/Spoke |
|---|--|
| 87. Steering Column Type (1) Fixed column (2) Tilt column (3) Telescoping column | Deformation (00) No steering rim deformation Querter Sections (01) Section A (02) Section B |
| (4) Tilt and telescoping column (8) Other column type (specify): (9) Unknown | (02) Section B (03) Section C (04) Section D |
| (9) Onknown | Half Sections (05) Upper half of rim/spoke (06) Lower half of rim/spoke (07) Left half of rim/spoke (08) Right half of rim/spoke |
| 88. Blank (This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS. | (09) Complete steering wheel collapse (10) Undetermined location (99) Unknown |
| | INSTRUMENT PANEL |
| 89. Blank (This variable is left blank | 94. Odometer Reading |
| so that numbering consistency can be maintained with the 1988-94 CDS. | nearest 1,000 kilometers (000) No odometer (001) Less than 1,500 kilometers (500) 499,500 kilometers or more (999) Unknown |
| 90. Blank (This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS. | |
| 91. Blank (This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS. | 95. Instrument Panel Damage from Occupant Contact? (0) No (1) Yes (9) Unknown |
| 92. Steering Rim/Spoke Deformation Code actual measured deformation to the nearest centimeter (00) No steering rim deformation (01-14) Actual measured value in centimeters | 96. Knee Bolsters Deformed from Occupant Contact? (0) No (1) Yes (8) Not present (9) Unknown |
| (15) 15 centimeters or more (98) Observed deformation cannot be measured (99) Unknown | 97. Did Glove Compartment Door Open During Collision(s)? (0) No (1) Yes (8) Not present (9) Unknown |
| | |

compartment, damage to instrument panel structure.

Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.

Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.



| | | | POII | 115 (| JF UC | CUPANT CONTAC | | | |
|----------------------|---------|--|-----------------------------|--------------|------------------------------------|--|--------------|---|--|
| Cont | act | Interior Component Contacted | Occupant No. If Known | R | lody egion If nown | Supporting Ph | ysical E | vidence | Confidence Level of Contact Point |
| A | | | | | | | | | |
| | | | | + | | | | | |
| В | | | | | | | | | |
| С | | | | | | | | | |
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| N | | | | | | <u> </u> | | | 1 |
| (02) (03) (04) | | or ng wheel rim | | | Left side | pillar (specify): window glass or frame window glass including | (47) (48) | Interior loose object Child safety seat (s | pecify): |
| | | ng wheel hub/spo ng wheel (combin | | | | ore of the following: ndow sill, A (A1/A2)-piller, | (49) | Other interior object | t (specify): |
| | of cod | es 04 and 05) | | | | r roof side rail. | 2005 | | |
| (07) | | ng column, transr or lever, other att | | (27) | Other left | side object (specify): | ROOF (50) | Front header | |
| (08) | | n equipment (e.g. | | (28) | Left side | window sill | (51) | Rear header | |
| | | eir conditioner) | | B101 FT | nine. | | (52) (53) | Roof left side rail Roof right side rail | |
| | | strument panel a · instrument pane | | RIGHT (30) | | interior surface, | (54) | Roof or convertible | top |
| | | nstrument panel | | • • • • | excluding | herdware or armrests | | | |
| (12) | | compartment do | | | | hardware or armrest | FLOOR | 5 <i>f</i> | 1 |
| (13) | | | | (32) | | A 1 /A2)-piller | (56) (57) | Floor (including too | - |
| (14) | | hield including or following: front l | | (33) (34) | | mer ht piller (specify): | (07) | transmission lever, | |
| | | /A2)-pillar, instru | | | | | (FO) | console | 4 1 |
| | | , or steering asse | mbly (driver | (35) | • | window glass or frame | | Parking brake hand Foot controls inclu | |
| /1E) | side o | nly) hield including or | o or more | (30) | - | window gless including ore of the following: | (03) | brake | ong paning |
| (19) | | following: front l | | | | indow sill, A (A1/A2)-pillar, | | 2.0 | |
| | | /A2)-pillar, instrur | | | • | r roof side rail. | REAR | | |
| | | (passenger side | | (37) | Other rigi | ht side object (specify): | (60) | • | |
| (16) | Driver | side air bag com | partment | | | | (61) | Becklight storage | |
| | COVer | | | (38) | Right side | window sill | (62) | Other rear object (| specity): |
| (17) | | nger side air bag | | INITED! | ^ P | | | | |
| /4 01 | • | artment cover | v exterior | INTERIO | ok Seat, bad | ek support | | | |
| (18) | | hield reinforced b (specify): | A errailoi | | | sint webbing/buckle | | | |
| (19) | • | front object (spe | cify): | | Belt restr | eint B-piller | | CONFIDENCE LE | |
| | | · · · · · · · · · · · · · · · · · · · | | 1491 | attachme | int point itraint system component | i | CONTACT PO | 711 4 1 |
| LEFT S | IDF | | | (43) | (specify): | • | l | (1) Certain | |
| | | ide interior surfac | : . . | (44) | | traint system | 1 | (2) Probable | • |
| ,_0/ | | ling hardware or | | | | (use codes "16" and "17" | | (3) Possible | |
| (21) | | ide hardware or s | | | | es sustained from air beg | | (9) Unknow | n |
| 1221 | 1 -4- 4 | (A1/A2)-piller | | | comparit | ment covers) | 1 | | |

compartment covers)

(22) Left A (A1/A2)-piller

| | | AUTOMATIC RESTRAINTS | | |
|--|--|--|--|--|
| NOTES | S: Encode the data for each appelow. Restraint systems at Assessment Form. | plicable front seat position. The attribution of the attribution of the property of the proper | ute for the variables may be found spection then coded on the Occupant | |
| - | | AIR BAGS | | |
| | | Left | Right | |
| F | Availability/Function | | 1 | |
| R | Deployment | 1 | | |
| S | Failure | İ | a | |
| Air Bag System Availability/Function (0) Not equipped/not available (1) Air bag Non-functional (2) Air bag disconnected (specify): (3) Air bag not reinstalled (9) Unknown | | Air Bag System Deployment (0) Not equipped/not available (1) Air bag deployed during accident (as a result of impact) (2) Air bag deployed inadvertently just prior to accident (3) Air bag deployed, accident sequence undetermined (4) Nondeployed (5) Unknown if deployed (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical) (9) Unknown | Are There Indications of Air Beg System Felture? (0) Not equipped/not available (1) No (2) Yes specify: 10+1a+er started (3) Unknown BAg on fige | |
| | | AUTOMATIC BELTS | | |
| | | Left | Right | |
| | Availability/Function | | | |
| F | Use | | | |
| l R | Type | | | |
| S | Proper Use | | | |
| Т | | | | |
| | Failure Modes | | | |
| (0) (1) (2) (3) (4) (9) (2) (3) (9) (9) Automa (0) (1) (1) | Rity/Function Not equipped/not evailable 2 point automatic belts 3 point automatic belts Automatic belts - type unknown functional Automatic belts destroyed or rendered inoperative Unknown atic (Passive) Belt System Use Not equipped/not available/destroyed or rendered inoperative Automatic belt in use Automatic belt in use (manually disconnected, motorized track inoperative) Automatic belt use unknown Unknown atic (Passive) Belt System Type Not equipped/not available Non-motorized system Motorized system | (0) Not equipped/not available/not used (1) Automatic belt used properly (2) Automatic belt used properly with child safety seat Automatic Belt Used Improperly (3) Automatic shoulder belt worn under arm (4) Automatic shoulder belt worn behind back (5) Automatic belt worn around more than one person (6) Lap portion of automatic belt worn on abdomen (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): (8) Other improper use of automatic belt system (specify): | Ouring Accident (0) Not equipped/not available/not in use (1) No automatic belt failure(s) (2) Torn webbing (stretched webbing not included) (3) Broken buckle or latchplate (4) Upper anchorage separated (5) Other anchorage separated (specify): (6) Broken retractor (7) Combination of above (specify): (8) Other automatic belt failure (specify): (9) Unknown | |
| | Unknown | | | |

MANUAL RESTRAINTS

NOTES: Encode the applicable data for each sest position in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Ocupant Assessment Form.

If a Child safety seat is present, encode the data on the back of this page.

If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous nage.

| | page. | 1 -4 | C | Bisha |
|--------|---------------------|------|----------|-------|
| | | Left | Center | Right |
| E | Availability | 4. | 0 | 4 |
| Ī | Evidence of usage | 04 | <u> </u> | 04. |
| R | Used in this crash? | 04 | | 04 |
| Ş | Proper Use | | | |
| • | Failure Modes | | | |
| | Availability | 4 | 3 | 4 |
| Ē | Evidence of usage | 04 | 60 | 04 |
| SECO | Used in this crash? | 00 | 00 | 60 |
| DZ D | Proper Use | 0 | 0 | 0 |
| D | Failure Modes | 0 | D | ٥ |
| | Availability | | | |
| O T | Evidence of usage | | | |
| н | Used in this crash? | | | |
| E R | Proper Use | | | |
| R | Failure Modes | | | |

| Mar | rual (A | (ctive | Belt | System | Availability |
|-----|---------|--------|------|--------|--------------|
|-----|---------|--------|------|--------|--------------|

- (O) None available
- Belt removed/destroyed (1)
- Shoulder belt (2)
- (3) Lap belt
- Lap and shoulder belt
- (5) Belt available type unknown

Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify):
- (9) Unknown

Manual (Active) Belt System Use

- (00) None used, not available, or belt
- removed/destroyed (O1) Inoperable (specify):
- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used - type unknown
- (08) Other belt used (specify):
- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat -
- type unknown
- (18) Other belt used with child safety seat (specify):
- (99) Unknown if belt used

Proper Use of Manual (Active) Belts

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperty

- (3) Shoulder belt worn under arm (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
 (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):
- (8) Other improper use of manual belt system (specify):
- (9) Unknown

Manual (Active) Belt Failure Modes During Accident

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):
- (6) Broken retractor
- (7) Combination of above (specify):
- (8) Other manual belt failure (specify):
- (9) Unknown

| CHILD SAFETY SE | AT FIELD ASSESSMENT |
|--|---|
| When a child safety seat is present enter the occup | ent's number in the first row and complete the column below w. Complete a column for each child safety seat present. |
| Occupant Number | |
| Type of Child Safety Seat | |
| Child Safety Seat Orientation | |
| 3. Child Safety Seat Harness Usage | |
| 4. Child Safety Seat Shield Usage | |
| 5. Child Safety Seat Tether Usage | |
| 6. Child Safety Seat Make/Model | Specify Below for Each Child Safety Seat |
| 1. Type of Child Safety Seat | 3. Child Safety Seat Harness Usage |
| (0) No child safety seat (1) Infant seat (2) Toddler seat (3) Convertible seat (4) Booster seat (7) Other type child safety seat (specify): | 4. Child Safety Seat Shield Usage 5. Child Safety Seat Tether Usage Note: Options Below Are Used for Variables 3-5. (00) No child safety seat |
| (8) Unknown child safety seat type (9) Unknown if child safety seat used 2. Child Safety Seat Orientation (00) No child safety seat | Not Designed with Harness/Shield/Tether (01) After market harness/shield/tether added, not used (02) After market harness/shield/tether used (03) Child safety seat used, but no after market harness/shield/tether added |
| Designed for Rear Facing for This Age/Weight (O1) Rear facing (O2) Forward facing (O8) Other orientation (specify): (O9) Unknown orientation | (09) Unknown if harness/shield/tether added or used Designed With Harness/Shield/Tether (11) Harness/shield/tether not used (12) Harness/shield/tether used (19) Unknown if harness/shield/tether used |
| Designed for Forward Facing for This Age/Weight (11) Rear facing (12) Forward facing (18) Other orientation (specify): | Unknown If Designed With Harness/Shield/Tether (21) Harness/shield/tether not used (22) Harness/shield/tether used (29) Unknown if harness/shield/tether used |
| (19) Unknown orientation Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight (21) Rear facing | (99) Unknown if child safety seat used6. Child Safety Seat Make/Model (Specify make/model and occupant number) |
| (22) Forward facing (28) Other orientation (specify): | |
| (29) Unknown orientation | · · · · · · · · · · · · · · · · · · · |
| (99) Unknown if child safety seat used | |

HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

| | | Left | Center | Right |
|-----|----------------------------|------|--------|-------|
| F | Head Restraint Type/Damage | 3 | ٥ | 3 |
| R | Seat Type | 02 | | 02 |
| S | Seat Performance | | | 1 |
| T | Seat Orientation | 1 | | |
| S | Head Restraint Type/Damage | 1 | 0, | |
| SEC | Seat Type | 05 | 05 | 05 |
| 0 | Seat Performance | | 1 | 1 |
| D | Seat Orientation | | 1 | 1 |
| т | Head Restraint Type/Damage | | | |
| H | Seat Type | | · | |
| Ŕ | Seat Performance | | | |
| D | Seat Orientation | | | |
| 0 | Head Restraint Type/Damage | | | |
| Ť | Seat Type | | | |
| E | Seat Performance | | | |
| R | Seat Orientation | | | |

Head Restraint Type/Damage by Occupant at This **Occupant Position**

- (0) No head restraints
- (1) Integral no damage (2) Integral damaged during accident
- (3) Adjustable no damage
 (4) Adjustable damaged during accident
- (5) Add-on no damage(6) Add-on damaged during accident
- (8) Other Specify):
- (9) Unknown

Seat Type (this Occupant Position)

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify):
- (10) Box mounted seat (i.e., van type)
- (99) Unknown

Seat Performance (this Occupant Position)

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed specify:
- (4) Seat tracks/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify):
- (7) Combination of above (specify):
- (8) Other (specify):
- (9) Unknown

Seat Orientation (this Occupant Position)

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify):
- (9) Unknown

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE (I.E., UNUSUAL OCCUPANT CONTACT PATTERN)

| omplete the following if the researce the vehicle. Code the appropriate JECTION No [X] Yes [] escribe indications of ejection and | e data on the C | Occupant Ass | | | i from or entrapped |
|---|---|--------------|------------|---|---------------------|
| · | | | | | |
| Occupant Number | | | | | |
| Ejection | | | | · | |
| (Note on Vehicle Interior Sketch) Ejection Area | | | | | |
| Ejection Medium | | | | | |
| Medium Status | | | | | |
| jection (1) Complete ejection (2) Partial ejection (3) Ejection, Unknown degree (9) Unknown jection Area (1) Windshield (2) Left front (3) Right front (4) Left rear (5) Right rear | (7) Roof (8) Other area (e.g., back of pickup, etc.) (specify): (9) Unknown Ejection Medium (1) Door/hatch/tailgate (2) Nonfixed roof structure (3) Fixed glazing (4) Nonfixed glazing (specify): | | (9) Unknow | edium (specify): n s (Immediately Prior | |
| NTRAPMENT No [X] Yescribe entrapment mechanism: | s [] | | | | |
| | | | | . \ | |
| Component(s): | | | | | |

Appendix E:

NASS CDS VEHICLE FORMS: VEHICLE #2

National Highway Traffic Safety

GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

| <u> </u> | B (J G KO) I | T | CKASHWORTHINESS | DATA SYSTEM |
|------------|---|-----|---|-------------------|
| 1. | Primary Sampling Unit Number | 11. | Police Reported Alcohol Presence (0) No alcohol present | 0 |
| 2. | Case Number - Stratum 9416 | | (1) Yes (alcohol present) (7) Not reported | |
| 3. | Vehicle Number | | (8) No driver present (9) Unknown | |
| | VEHICLE IDENTIFICATION | | | |
| | Vehicle Model Year 86 | | Note: See variables 37 through 55 (Page 4) for information on Other | Drugs |
| | Code the last two digits of the model year (99) Unknown | 12. | Alcohol Test Result For Driver | 96 |
| | | | Code actual value (decimal implied before first digit -0.xx) | |
| 5. | Vehicle Make (specify): | | (95) Test refused (96) None given | |
| | Applicable codes are found in your | | (97) AC test performed, results unknown (98) No driver present | ı |
| | NASS Data Collection, Coding and | | (99) Unknown | |
| | Editing Manual. (99) Unknown | | Source: PAR | |
| | | | ACCIDENT RELATED | |
| 6. | Vehicle Model (specify): 0 0 8 | 12 | | 40 |
| | Applicable codes are found in your | | Speed Limit (000) No statutory limit | 70 |
| | NASS Data Collection, Coding and Editing Manual. | | Code posted or statutory speed limit | |
| | (999) Unknown | | in kph (999) Unknown | |
| | | i | $\frac{25}{2}$ mph x 1.6093 = $\frac{040}{2}$ kph | |
| | Body Type <u>05</u> | | <u>& J</u> mph X 1.6093 = <u>U / U</u> kph | |
| i | Note: Applicable codes may be found on the back of this page. | 14. | Attempted Avoidance Maneuver | 01 |
| | and account the page. | | (01) No avoidance actions | |
| 8. 1 | Vehicle Identification Number | | (02) Braking (no lockup) (03) Braking (lockup) | |
| | | | (04) Braking (lockup unknown) (05) Releasing brakes | |
| <u>+</u> - | B3BZ48C9GD 2 3 4 6 6 7 8 9 10 11 12 13 14 16 18 17 | | (06) Steering left | |
| , | 2 3 4 6 6 7 8 9 10 11 12 13 14 16 16 17 | | (07) Steering right | |
| | Left justify; Slash zeros and letter Z (0 and Z) | | (08) Braking and steering left (09) Braking and steering right | |
| | No VIN—Code all zeros Unknown—Code all nines | | (10) Accelerating | |
| | OFFICIAL RECORDS | | (11) Accelerating and steering left (12) Accelerating and steering right | |
| |) | ļ | (97) No driver present | |
| | Police Reported Vehicle Disposition / | | (98) Other action (specify): | |
| | (0) Not towed due to vehicle damage (1) Towed due to vehicle damage | | (99) Unknown | |
| | 9) Unknown | | | \wedge α |
| | | | Accident Type Applicable codes may be found on the | 87 |
| 10. F | Police Reported Travel Speed 4999 | | back of page two of this field form | |
| (| Code to the nearest kph (NOTE: 000 means | | (CO) No impact Code the number of the diagram that | |
| ŀ | ess than 0.5 kph) | | best describes the accident circumstance | |
| | 160) 159.5 kph and above 999) Unknown | | (98) Other accident type (specify): | |
| | mph X 1.6093 = kph | | (99) Unknown | |
| | крп | | | |
| | **** SKIP TO VARIABLE GV37 IF G | V07 | DOES NOT EQUAL 01-49 **** | |

| | OCCUPANT RELATED | 24. Rollover |
|-----|--|---|
| | Di Di Vahiala | (0) No rollover (no overturning) |
| 16. | Driver Presence in Vehicle (0) Driver not present | |
| | (1) Driver present | Rollover (primarily about the longitudinal axis) |
| | (9) Unknown | (1) Rollover, 1 quarter turn only (2) Rollover, 2 quarter turns |
| | 5 2 | (3) Rollover, 3 quarter turns |
| 17. | Number of Occupants This Vehicle | (4) Rollover, 4 or more quarter turns (specify): |
| | (00-96) Code actual number of occupants for this vehicle | |
| | (97) 97 or more | (5) Rolloverend-over-end (i.e., primarily |
| | (99) Unknown | about the lateral axis) |
| | Number of Occupant Forms Submitted 62 | (9) Rollover (overturn), details unknown |
| 18. | Number of Occupant Forms Submitted | |
| | VEHICLE WEIGHT ITEMS | OVERRIDE/UNDERRIDE (THIS VEHICLE) |
| 19. | Vehicle Curb Weight | 25. Front Override/Underride (this Vehicle) |
| | 10 kilograms. | 26. Rear Override/Underride (this Vehicle) |
| | (045) Less than 450 kilograms (610) 6,100 kilograms or more | |
| | (999) Unknown | (0) No override/underride, or not an end-to-end impact |
| | 2.211 lbs x .4536 = 1.003 kgs | not an eno-to-end impact |
| | | Override (see specific CDC) |
| | Source: | (1) 1st CDC |
| | n | (2) 2nd CDC (3) Other not automated CDC (specify): |
| 20. | Vehicle Cargo Weight O, O O | |
| | 10 kilograms. | 11 de 11 desembre 000 |
| | (000) Less than 5 kilograms (450) 4,500 kilograms or more | Underride (see specific CDC) (4) 1st CDC |
| | (999) Unknown | (5) 2nd CDC |
| | , lbs X .4536 =kgs | (6) Other not automated CDC (specify): |
| | | |
| | RECONSTRUCTION DATA | (7) Medium/heavy truck or bus override |
| 21. | Towed Trailing Unit | (9) Unknown |
| | (0) No towed unit (1) Yes—towed trailing unit | WEARING ANGLE AT MARACT FOR |
| | (9) Unknown | HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V |
| | | HIGHEST BELTA V |
| 22. | Documentation of Trajectory Data | Values: (000)-(359) Code actual value |
| | for This Vehicle (0) No | (997) Noncollision (998) Impact with object |
| _ | (1) Yes | - (999) Unknown |
| | | |
| 23. | Post Collision Condition of Tree or Pole (For Highest Delta V) | 27. Heading Angle For This Vehicle 0 9 0 |
| | (For Highest Delta V) (0) Not collision (for highest delta V) with | 28. Heading Angle For Other Vehicle / 6 8 |
| | tree or pole | |
| | (1) Not damaged (2) Cracked/sheared | |
| | (3) Tilted <45 degrees | |
| | (4) Tilted ≥45 degrees (5) Uprooted tree | . 1 |
| | (6) Separated pole from base | |
| | (7) Pole replaced (8) Other (specify): | , |
| | (9) Unknown | |
| Щ | 10/ CHRIDAALI | |

| 9. Basis for Total Delta V (highest) | Highest |
|---|--|
| | 32. Lateral Component of Delta V |
| Delta V Calculated (1) CRASH program—damage only routine | Nearest kph (highest) |
| (2) CRASH program—damage and trajectory routine | Nearest kph (secondary) |
| (3) Missing vehicle algorithm | (NOTE: 000 means greater than |
| Delta V Not Calculated | -0.5 kph and less than +0.5 kph) |
| (4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of | (±160) ±159.5 kph and above (_999) Unknown |
| collision conditions. (5) All vehicles within scope (CDC applicable) | 33. Energy Absorption O 12, 300 |
| of CRASH program but one of the collision conditions is beyond the scope of the CRASH | 12252Nearest 100 joules (highest) |
| program or other acceptable reconstruction technique, regardless of adequacy of damage | Nearest 100 joules (secondary) |
| data. | |
| (6) All vehicle and collision conditions are within scope of one of the acceptable reconstruction | (NOTE: 0000 means less than 50 joules) (9997) 999,650 joules or more |
| programs, but there is insufficient data available. | (9999) Unknown |
| available. | O. C. Sidana la Bassanania Bassana |
| COMPUTER GENERATED DELTA V | 34. Confidence in Reconstruction Program Results (For Highest Delta V) |
| Highest | (0) No reconstruction (1) Collision fits model — results appear |
| 0. Total Delta V | reasonable (2) Collision fits model — results appear high |
| Nearest kph (highest) | (3) Collision fits model — results appear low(4) Borderline reconstruction — results appear |
| Nearest kph (secondary) | reasonable |
| (NOTE: 000 means less than | 35. Type of Vehicle Inspection |
| 0.5 kph) (160) 159.5 kph and above | (0) No inspection (1) Complete inspection |
| (999) Unknown | (2) Partial inspection (specify): |
| 1. Languaginal Company of | |
| 1. Longitudinal Component of Delta V + OOO | 36. Is this an AOPS Vehicle? |
| - Nearest kph (highest) | (0) No (1) Yes - researcher determined |
| Nearest kph (secondary) | (2) VIN determined air bag system |
| | (3) VIN determined automatic (passive) belts (4) VIN determined air bag and automatic |
| (NOTE:000 means greater than -0.5 kph and less than +0.5 kph) | (passive) belts |
| (±160) ±159.5 kph and above (999) Unknown | |
| <u> </u> | |

| 37. | Police Reported Other Drug Presence (0) No other drug(s) present | 0 | DRUG EVALUATION CL OTHER DRUGS TEST RESUL | |
|-----|--|----------|---|--|
| | (1) Yes (other drug(s) present)(7) Not reported(8) No driver present(9) Unknown | | | DEC Specimen Test Test Results Results |
| 38. | Police Reported Drug Evaluation Classification (DEC) Test For Driver (0) No DEC process available or given (1) DEC process given, results known (2) DEC process given, results unknown (3) DEC process available, unknown if given (8) No driver present | 0 | Depressant Drug Stimulant Drug Hallucinogen Drug Canabinoid Drug Phencyclidine (PCP) Inhalant Drug | 10. <u>0</u> 41. <u>0</u> 12. <u>0</u> 43. <u>0</u> 14. <u>0</u> 45. <u>0</u> 16. <u>0</u> 47. <u>0</u> 18. <u>0</u> 49. <u>0</u> 50. <u>0</u> 51. <u>0</u> 52. <u>0</u> 53. <u>0</u> 54. <u>0</u> 55. <u>0</u> |
| 39. | Other Drug Specimen Test Type For Driver (0) No specimen test given (1) Blood test (2) Urine test (3) Other specimen tests (specify): | <u>D</u> | (0) No DEC test given (1) Passed DEC test (2) Failed DEC test (3) DEC test given—results (8) No driver present (9) Unknown if DEC test given | |
| | (7) Unspecified specimen test (8) No driver present (9) Unknown if specimen test given | | Codes for Specimen Test Re (0) No specimen test given (1) Drug not found in specimen (2) Drug found in specimen (7) Specimen test given, res not obtained (8) No driver present (9) Unknown if specimen te | sults nen sults unknown or |
| | · · | | - | |
| | | | . • | |

| OTHER DATA | 61. Rollover Initiation Object Contacted |
|--|---|
| (00000) Driver not present (00001) Driver not a resident of U.S. or territories Code actual 5-digit zip code (99999) Unknown | 62. Location on Vehicle Where Initial Principal Tripping Force Is Applied (0) No rollover (1) Wheels/tires (2) Side plane |
| 57. Driver's Race/Ethnic Origin (0) Driver not present (1) White (non-Hispanic) (2) Black (non-Hispanic) (3) White (Hispanic) (4) Black (Hispanic) (5) American Indian, Eskimo or Aleut (6) Asian or Pacific Islander (8) Other (specify): | (3) End plane (4) Undercarriage (5) Other location on vehicle (specify): (8) Non-contact rollover forces (specify): (9) Unknown |
| (9) Unknown 58. Vehicle Special Use (This Trip) (0) No special use (1) Taxi (2) Vehicle used as school bus (3) Vehicle used as other bus (4) Military (5) Police (6) Ambulance (7) Fire truck or car | (0) No rollover (1) Roll right - primarily about the longitudinal axis (2) Roll left - primarily about the longitudinal axis (5) End-over-end (i.e., primarily about the lateral axis) (9) Unknown roll direction PRECRASH DATA |
| (8) Other (specify):(9) Unknown | 64. Pre-Event Movement (Prior to 03 |
| ROLLOVER DATA If GV07 (Body Type) ≠ 1-49, leave GV59-GV63 blank. If GV24 (Rollover) = 0, then GV59-GV63 must equal 0. If GV24 = 9, then GV59-GV63 must equal 9. 59. Rollover Initiation Type (0) No rollover (1) Trip-over (2) Flip-over | Recognition of Critical Event) (01) Going straight (02) Slowing or stopping in traffic lane (03) Starting in traffic lane (04) Stopped in traffic lane (05) Passing or overtaking another vehicle (06) Disabled or parked in travel lane (07) Leaving a parking position (08) Entering a parking position (09) Turning right |
| (2) Filp-over (3) Turn-over (4) Climb-over (5) Fall-over (6) Bounce-over (7) Collision with another vehicle (8) Other rollover initiation type specify): | (10) Turning left (11) Making a U-turn (12) Backing up (other than for parking position) (13) Negotiating a curve (14) Changing lanes (15) Merging (16) Successful avoidance maneuver to a previous critical event (97) Other (specify): |
| 60. Location of Rollover Initiation (0) No rollover (1) On roadway (2) On shoulder—paved (3) On shoulder—unpaved (4) On roadside or divided trafficway median (9) Unknown | (98) No driver present (99) Unknown |

PRECRASH DATA (Continued) Pedestrian or Pedalcyclist, or Other Nonmotorist 65. Critical Precrash Event (80) Pedestrian in roadway (81) Pedestrian approaching roadway This Vehicle Loss of Control Due To: (82) Pedestrian—unknown location (01) Blow out or flat tire (83) Pedalcyclist or other nonmotorist in roadway (02) Stalled engine (03) Disabling vehicle failure (e.g., wheel fell off) (specify): (84) Pedalcyclist or other nonmotorist approaching (specify): (O4) Non-disabling vehicle problem (e.g., hood flew roadway (specify): (85) Pedalcyclist or other nonmotorist - unknown up) (specify): (05) Poor road conditions (puddle, pot hole, ice, etc.) location (specify): (specify): Object or Animal (06) Traveling too fast for conditions (08) Other cause of control loss (specify): (87) Animal in roadway (88) Animal approaching roadway (89) Animal-unknown location (09) Unknown cause of control loss (90) Object in roadway (91) Object approaching roadway This Vehicle Traveling . (10) Over the lane line on left side of travel lane (92) Object—unknown location (11) Over the lane line on right side of travel lane (12) Off the edge of the road on the left side (98) Other critical precrash event (specify): (13) Off the edge of the road on the right side (99) Unknown (14) End departure (15) Turning left at intersection (16) Turning right at intersection For Corrective Actions Attempted see variable GV14 (17) Crossing over (passing through) intersection (19) Unknown travel direction (Attemped Avoidance Manuever) Other Motor Vehicle In Lane (50) Stopped 0 66. Precrash Stability After Avoidance Maneuver (51) Traveling in same direction with lower speed (0) No avoidance maneuver (i.e., lower steady speed or decelerating) (1) Tracking (52) Traveling in same direction with higher speed (2) Skidding longitudinally-rotation less than 30 (53) Traveling in opposite direction degrees (54) In crossover (3) Skidding laterally—clockwise rotation (55) Backing (4) Skidding laterally—counterclockwise rotation (59) Unknown travel direction of other motor vehicle (7) Other vehicle loss-of-control (specify): in lane (8) No driver present Other Motor Vehicle Encroaching Into Lane (60) From adjacent lane (same direction)—over left (9) Precrash stability unknown lane line (61) From adjacent lane (same direction)-over right lane line 0 67. Precrash Directional Consequences of (62) From opposite direction—over left lane line Avoidance Maneuver (Corrective Action) (63) From opposite direction—over right lane line (O) No avoidance maneuver (64) From parking lane (1) Vehicle stayed in travel lane where avoidance (65) From crossing street, turning into same maneuver was initiated direction (2) Vehicle staved on roadway but left travel lane (66) From crossing street, across path where avoidance maneuver was initiated ... (67) From crossing street, turning into opposite (3) Vehicle stayed on roadway, not known if left direction travel lane where avoidance maneuver was (68) From crossing street, intended path not known initiated (70) From driveway, turning into same direction (71) From driveway, across pat 1 (4) Vehicle departed roadway (72) From driveway, turning into opposite direction (5) Avoidance maneuver initiated off roadway (73) From driveway, intended path not known (8) No driver present (74) From entrance to limited access highway (9) Directional consequences unknown (78) Encroachment by other vehicle—details unknown *** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35 = 0), ***

*** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35=0), ***
DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.

*** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE ***
THE EXTERIOR VEHICLE, INTERIOR VEHICLE,
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.



| J.S. Department of Transportation National Highway Traffic Safety Administration | | HICLE FORM | NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM |
|--|---|------------------------|--|
| 1. Primary Sampling Ur | it Number 10 | 3. Vehicle Number | 02 |
| 2. Case Number - Strat | um <u>9416</u> | | |
| | VEHICLE IDE | NTIFICATION | |
| vin / B 3 B | <u> </u> | | Model Year <u>8 6</u> |
| Vehicle Make (specify): | DODGE | Vehicle Model (specify | DI OMNI |
| | LOCA | ATOR | |
| Locate the end of the da or an undamaged axle for | mage with respect to the vehicle or side impacts. | | |
| Specific Impact No. | Location of Direct Dama | ge 3cm Back | Location of Field L |
| 01 | DBC37cm back to | 180cm AbovE = | 5111, MID DOOR from |
| | | R Axle | fen |

CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure and document on the vehicle diagram the location of maximum crush.

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

| Specific | | Direct D | amage | | | | MAX | | | | |
|------------------|-----------------------------------|----------------|--------------|------------|----|----|-----|----------------|----------------|----|------|
| Impact Number | Plane of Impact C-Measurements | Width (CDC) | Max Crush | Field L | C, | C2 | WYX | C ₄ | C _e | C. | ±D |
| 01 | MID DOOR | 123 | 23 | 180cm | 0 | 8 | 23 | // | 12.5 | 8 | 114 |
| | FREE SPACE | | 1 | | 0 | 0 | / | | 5 | 6 | |
| | FREE SPACE FINAL MID DOOR | | 22 | · | 0 | 8 | 22 | 10 | 7.5 | Z | +142 |
| 02 | MID DOOR | 63cm | 2cm | 63c | | | | | | | |
| | | | | | | | | ,e | | | |
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ORIGINAL SPECIFICATIONS WORK SHEET

| - 1 | | | | | | | | | | |
|-----|----|--|-----|----------|------------|--------|---|-------|---|----------------------|
| | | Wheelbase | | 9 | 9.1 | inches | x | 2.54 | = | 252 cm |
| | | Overall Length | 1 | 6 | 4.8 | inches | x | 2.54 | = | <u>_4_1_9</u> cm |
| | | Maximum Width | | 6 | <u>5.8</u> | inches | X | 2.54 | = | 167 cm |
| | | - | | | | | | | | 1,063 kg |
| | | Average Track <i>るし.</i> し よらり Front Overhang {36.5- | , — | _క | 5.9 | inches | X | 2.54 | - | 142cm |
| | | | | <u>3</u> | <u>3.5</u> | inches | X | 2.54 | = | <u>8</u> <u>5</u> cm |
| MV | MA | Rear Overhang | _ | <u>3</u> | 1.9 | inches | X | 2.54 | = | <u>&</u> cm |
| | | Undeformed End Width | | _ | | inches | X | 2.54 | = | cm |
| | | Engine Size: cyl./displ. | | | | СС | X | .001 | = | L |
| | 1 | | | | 35 | CID | X | .0164 | - | <u> </u> |
| | | | | | | | | | | 4 |
| | | | | | | | | | | |

Hydraulic brokes Manual Front disc Steering rear drum Branham's

| | VEHICLE DAMAGE SKETCH | |
|--|---|--|
| TIRE—WHEEL DAMAGE a. Rotation physically b. Tire restricted deflated RF 7 RF 2 LF 7 RR 2 LR 2 (1) Yes (2) No (8) NA (9) Unk. TYPE OF TRANSMISSION Manual Automatic | ORIGINAL SPECIFICATIONS Wheelbase Overall Length Maximum Width Curb Weight Average Track Front Overhang Rear Overhang Undeformed End Width Engine Size: cyl./displ. | (For locked front wheels or displaced rear axles only) RF ± o |
| | MEASUREMENTS IN CENTIMETERS | 2-1 |
| | Original Bumper height | /53 |
| TIRES OF WINK | | Black scuff Direct Dam |
| | POST-CRAS | и в н |
| e III | umper corner 79.5 247 Stringline | Stringline |
| 5.6 | POST CR | A SH |
| <u> </u> | umper corner 79 25. Stringline | |

| | | | CDC V | VORKSHE | 2 | | | |
|-----------------------|-----------------|---|-------------|------------------------------|-----------------|-----------------|----------------------------|-------------|
| | | C | ODES FOR | DBJECT CON | ITACTED | | | |
| (01-30) | - Vehicle Nu | mber | | (5) | 7) Fence | | | |
| (0.00) | | | | (5) | 3) Wall | | | |
| Noncoli | ision | | | · · | 9) Building | | | |
| | Overturn - ro | ollover | | | Ditch or | culvert | | |
| | Fire or explosi | | | (6) | I) Ground | | | |
| | Jackknife | , | | (6: | 2) Fire hydi | ant | | |
| | | t damage (speci | fv): | | 3) Curb | | | |
| ,0 ., | | , | . , , . | | 1) Bridge | | | |
| (35) | Noncollision in | niurv | | | | ed object (s | specify): | . [|
| | Other noncolli | | | | | | | |
| | | | | (6: |) Unknow | n fixed obje | ct | |
| (39) | Noncollision - | - details unknov | vn | | | | | |
| | | | | Collis | ion with No | nfixed Obje | ct | |
| Collision | n With Fixed O | bject | | (7 | 1) Motor ve | ehicle not in | -transport | |
| | Tree (≤ 10 cr | | | • | 2) Pedestria | | | |
| (42) | Tree (> 10 ci | m in diameter) | | | 3) Cyclist o | | | |
| (43) | Shrubbery or | bush | | (7 | 4) Other no | nmotorist o | r conveyand | :e |
| (44) | Embankment | | | | | | | |
| | | | | (7 | 5) Vehicle | occupant | | |
| (45) | Breakaway po | ele or post (any o | diameter) | | 6) Animal | | | |
| | | | | | 7) Train | | | |
| Nonbre | akaway Pole o | r Post | | | | | d in transpor | |
| | | ≤ 10 cm in dian | | | | | icle in-trans _! | |
| (51) | Pole or post (| $>$ 10 cm but \leq | 30 cm in | (8: | B) Other no | onfixed obje | ct (specify): | |
| | diameter) | | | | | | | |
| | | > 30 cm in dian | | (89) Unknown nonfixed object | | | | |
| (53) | Pole or post (| diameter unknov | vn) | | | | | |
| .= | | | | (9 | B) Other ev | ent (specify | /): | |
| • | Concrete traff | | | (0 | 0) Helmon | | hinat | |
| (55) | Impact attenu | ator | | (9 | 9) Unknow | n event or o | object | |
| (56) | | parrier (includes | guardrail) | | | | | |
| | (specify): | | | _ | | | | |
| | | DEFORMA* | TION CLASS | IFICATION E | Y EVENT N | UMBER | | |
| | | | | | 440 | <i>(</i> E) | | |
| Accident | | (1) (2) | | | (4) Specific | (5) Specific | (6) | |
| Event | | Direction | incremental | (3) | Longitudinal | Vertical or | Type of | (7) |
| Sequence | . Object | of Force | Value of | Deformation | or Lateral | Lateral | Damage | Deformation |
| Number | Contacted | (degrees) | Shift | Location | Location | Location | Distribution | Extent |
| $\overline{\wedge}$ 1 | 01 | | | | <u></u> | E | 101 | 03 |
| ~ | | | | <u></u> | <u> </u> | | $\overline{\mathcal{M}}$ | |
| 02 | 01 | -80 | | <u>_</u> | \mathcal{B} | A | 5 | 01 |
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| | | COLLIS | ION DEFORM | ATION CLA | SSIFICATIO | N | |
|---|--|-----------------------------|---|--|------------------------------------|---|------------------------|
| HIGHEST I | DELTA "V" | | | | | | |
| Accident Event Sequence Number | Object Contacted | (1) (i Directi of For | ion Deformatio | (4) Longitudina on or Lateral Location | (5) I Vertical or Lateral Location | (6) Type of Damage Distribution | (7) Deformation Extent |
| 4.01 | 5. <u>6</u> <u>1</u> | 6 | <u>0</u> 7. <u>L</u> | 8. <u> </u> | 9. <u>E</u> | 10. <u>W</u> | 11. 0 2 |
| Second Hig | ghest Delta "V | . | | | | | |
| 12.02 | 13. <u>0</u> | 140 | <u>9</u> 15. <u>L</u> | 16. <u>Z</u> | 17. <u>E</u> | 18. <u>W</u> | 19. <u>Ø</u> / |
| | | C | RUSH PROFIL | E IN CENTI | METERS | | |
| | | | e damage describ pace below. (ALL | | | | ed |
| HIGHEST (| DELTA "V" | | | | | | - |
| 20. | 21. | C ₂ | | C ₄ | | C _e | 22. |
| <u> 180</u> | 000 | <u>008</u> | <u> 022</u> | 010 | 008 6 | 002 | 2143 |
| Second Hig | ghest Delta "V | • | | | | | |
| 23. | 24. | | | | C ₆ | C _e | 25. |
| | <u>-</u> | | | | | | + |
| | s Documented Coded on The ed File? | ٥ | 27. Researcher's A of Vehicle Dispose (0) Not towed vehicle dar (1) Towed due vehicle dar (9) Unknown | position I due to mage e to mage | (999) | al Wheelbase _Code to the nearest centime Unknown | |
| | | | | | 2. <u>/</u> inches X 2 | 1.54 = <u>A 5 A</u> | centimeters |

| | Is This A Multi-Stage Manufactured Vehicle And/Or A Certified Altered Vehicle? (O) No post manufacturer modifications (1) Yes - post manufacturer modifications (specify): (Include photograph of CERTIFICATION PLACARD in case report) (9) Unknown if vehicle is modified Fire Occurrence (O) No fire Yes, fire occurred (1) Minor (2) Major (9) Unknown | 0 | 34. Fuel Tank-1 Location (0) No fuel tank (1) Aft of center of the rear wheels (rear axle) centered (2) Aft of center of the rear wheels (rear axle) left side (3) Aft of center of the rear wheels (rear axle) right side (4) Forward of center of the rear wheels (rear axle) centered (5) Forward of center of the rear wheels (rear axle) left side (6) Forward of center of the rear wheels (rear axle) right side (7) Over center of the rear wheels (rear axle) (8) Other (specify): |
|-----|---|----------|---|
| | Origin of Fire (0) No fire (1) Vehicle exterior (front, side, back, top) (2) Exhaust system (3) Fuel tank (and other fuel retention system parts) (4) Engine compartment (5) Cargo/trunk compartment (6) Instrument panel (7) Passenger compartment area (8) Other location (specify): (9) Unknown | <u>0</u> | (9) Unknown 36. Fuel Tank-1 Filler Cap Location 37. Fuel Tank-2 Filler Cap Location (0) No fuel tank (1) On back plane (2) Aft of center of the rear wheels (rear axle) on left side plane (3) Aft of center of the rear wheels (rear axle) on right side plane (4) Forward of center of the rear wheels (rear axle) on left side plane (5) Forward of center of the rear wheels (rear axle) on right side plane (6) Over the center of the rear wheels (rear axle) on left side plane (7) Over the center of the rear wheels (rear axle) |
| 33. | Type of Fuel Tank-2 (0) No fuel tank (electrical vehicle) (1) Metallic (2) Non-metallic (9) Unknown | 0 | on right side plane (8) Other (specify): (9) Unknown 38. Fuel Tank-1 Damage 39. Fuel Tank-2 Damage (0) No fuel tank (1) No damage to fuel tank (2) Deformed, no seam failure (3) Deformed, with a seam failure (4) Punctured (5) Lacerated (ripped) (6) Abraded (scraped) (7) Filler neck separation from the fuel tank (8) Other damage (specify): (9) Unknown |

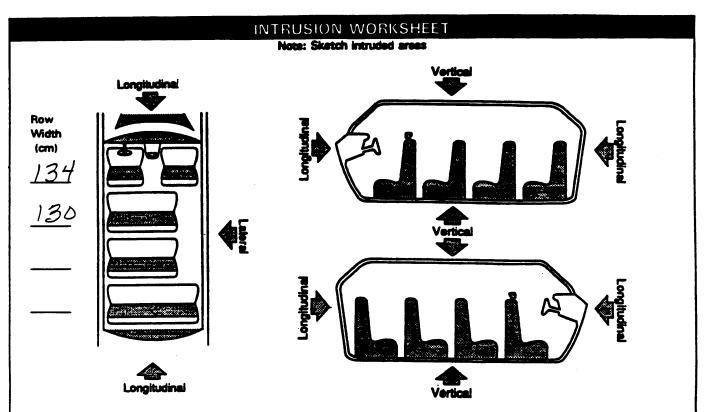
| 40. | Location of Fuel System-1 Leakage | 44. Is This Vehicle Equipped With More Than |
|------------|--|---|
| 41. | Location of Fuel System-2 Leakage (0) No fuel tank | (0) No (one or two tanks only) |
| | (1) No fuel leakage | Yes - More Than Two Tanks (1) Yes no damage to any tank or filler |
| | Primary Area Of Leakage | cap and <u>no fuel system leakage</u> |
| | (2) Tank | (2) Yes no damage to any tank or filler |
| | (3) Filler neck (4) Cap | cap but <u>there is fuel system leakage</u> (specify leakage location): |
| | (5) Lines/pump/filter | |
| | (6) Vent/emission recovery | (3) Yes damage to an additional tank or |
| | (8) Other (specify): | filler cap and there is fuel system leakage (specify the following): |
| | (9) Unknown | Type of tank |
| | | Tank location |
| 42 | Fuel Type-1 | Filler cap location Tank damage |
| 74. | | Location of leakage |
| 43. | Fuel Type-2 | Type of fuel(9) Unknown if more than two tanks |
| | Single Fuel Type | (9) Unknown if more than two tanks |
| | (00) No fuel tank | |
| | (01) Gasoline | COMMENTS |
| | (02) Diesel (03) CNG (Compressed Natural Gas) | COMMENTS |
| | (04) LPG (Liquid Petroleum Gas) also | |
| | known as Propane | |
| | (05) LNG (Liquid Natural Gas) (06) Methanol (M100 or M85) | |
| | (07) Ethanol (E100 or E85) | |
| | (08) Other (Hydrogen or others) (specify): | · |
| | Electric Powered or Electric/Solar | |
| | Powered Vehicles | |
| | (10) Lead Acid Battery (11) Nickel-Iron Battery | |
| | (12) Nickel-Cadmium Battery | |
| | (13) Sodium Metal Chloride Battery (14) Sodium Sulfur Battery | |
| | (18) Other (Specify): | |
| | | |
| | (98) Other Hybrid (specify): | |
| _ | (00) | |
| | (99) Unknown fuel type | |
| | | |
| | | L |
| . . | - OTOD IF THE ODO ADDITION | /AC NOT TOWER AND WAS NOT AN ASSOCIATION |
| | | VAS NOT TOWED AND WAS NOT AN AOPS |
| | (I.E., $GV09 = 0$ OR 9 AND $GV36 = 0$), DO NO | T COMPLETE THE INTERIOR VEHICLE FORM. |
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| | | ; ; |
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INTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM

| U.S. Department of Transportation |
|-----------------------------------|
| National Highway Traffic Safety |
| Administration |

| Aministration | CALLAMONTHANGES DATA SYSTE |
|---|--|
| | GLAZING |
| 1. Primary Sampling Unit Number | Glazing Damage from Impact Forces |
| 2. Case Number - Stratum 9416 | 15. WS 2 16. LF 2 17. RF 2 18. LR 2 19. RR |
| 3. Vehicle Number <u>02</u> | 20. BL 2 21. Roof 8 22. Other |
| INTEGRITY | (O) No glazing demage from impact forces |
| 4. Passenger Compartment Integrity (00) No integrity loss | (2) Glazing in place and cracked from impact forces (3) Glazing in place and holed from impact forces (4) Glazing out-of-place (cracked or not) and not holed from impact forces |
| Yes, Integrity Was Lost Through (O1) Windshield (O2) Door (side) (O3) Door/hatch (back door) (O4) Roof (O5) Roof glass | (5) Glazing out-of-place and holed from impact forces (6) Glazing disintegrated from impact forces (7) Glazing removed prior to accident (8) No glazing (9) Unknown if damaged |
| (06) Side window (07) Rear window (backlight) (08) Roof and roof glass (09) Windshield and door (side) (10) Windshield and roof (11) Side and rear window (side window and backlight) | Glazing Damage from Occupant Contact 23. WS <u>0</u> 24. LF <u>0</u> 25. RF <u>0</u> 26. LR <u>0</u> 27. RR <u>0</u> 28. BL <u>0</u> 29. Roof <u>0</u> 30. Other |
| (12) Windshield and side window (13) Door and side window (98) Other combination of above (specify): (99) Unknown | (0) No occupant contact to glazing or no glazing (1) Glazing contacted by occupant but no glazing damage (2) Glazing in place and cracked by occupant contact (3) Glazing in place and holed by occupant contact (4) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact (5) Glazing out-of-place by occupant contact and holed by |
| Door, Tailgate or Hatch Opening 5. LF 3 6. RF / 7. LR / 8. RR / 9. TG/H / | occupent contact (6) Glazing disintegrated by occupant contact (9) Unknown if contacted by occupant |
| (0) No door/gete/hatch (1) Door/gate/hatch remained closed and operational | If No Glazing Damage <i>And</i> No Occupant Contact or No Glazing, Then Code IV31 Through IV46 As Ø |
| (2) Door/gate/hatch came open during collision (3) Door/gate/hatch jammed shut (8) Other (specify): | Type of Window/Windshield Glazing 31. WS / 32. LF 033. RF 034. LR 035. RR |
| (9) Unknown | 36. BL 0 37. Roof 38. Other 0 |
| Damage/Failure Associated with Door, Tailgate or Hatch Opening in Collision. If IV05-IV09 ≠ 2, Then code Ø 10. LF ○ 11. RF ○ 12. LR ○ 13. RR ○ 14. TG/H ○ (0) No door/gate/hatch or door not opened | (0) No glazing contact and no damage, or no glazing (1) AS-1 — Laminated (2) AS-2 — Tempered (3) AS-3 — Tempered-tinted (4) AS-14 — Glaze/Plastic (8) Other (specify): |
| Door, Teilgate or Hatch Came Open During Collision (1) Door operational (no damage) (2) Latch/striker feilure due to damage (3) Hinge failure due to damage (4) Door structure failure due to damage (5) Door support (i.e., piller, eill, roof eide rail, etc.) failure due to damage (6) Latch/striker and hinge failure due to damage (8) Other failure (specify): | Window Precrash Glazing Status 39. WS / 40. LF / 41. RF / 42. LR / 43. RR / 44. BL / 45. Roof / 46. Other / (0) No glazing contact and no damage, or no glazing (1) Fixed (2) Closed |
| (9) Unknown | (3) Partially opened (4) Fully opened (9) Unknown |



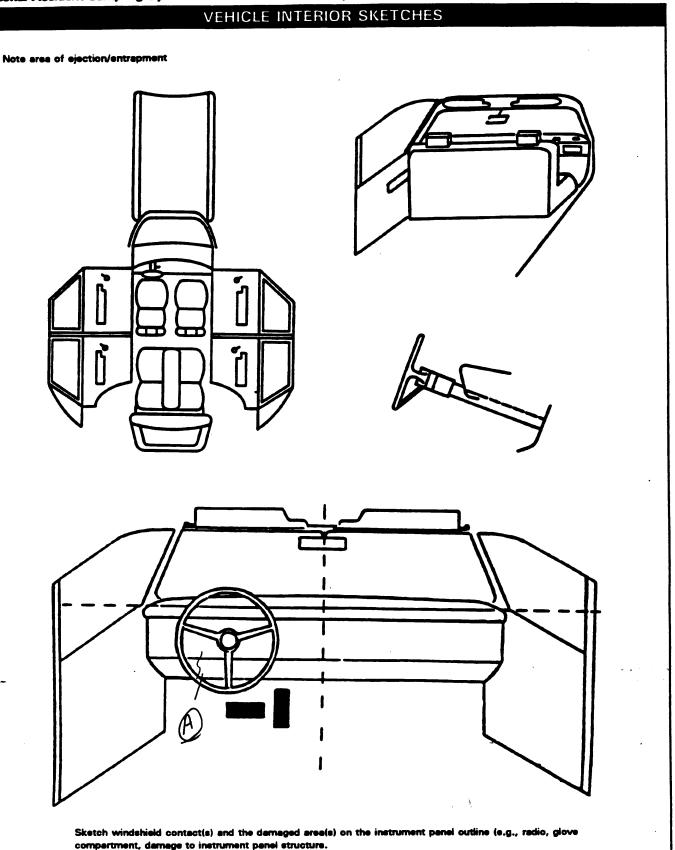
| LOCATION OF INTRUSION | INTRUDED COMPONENT | COMPARISON VALUE | Moseu | irements Are in Centic INTRUDED VALUE | neters) | INTRUSION | DOMINANT CRUSH DIRECTION |
|-----------------------------|-------------------------|---------------------|-------|---|---------|-----------|--------------------------------|
| 11 | DINST. Panel | 46 | _ | 50 | = | 4 | LAT |
|]1 | A-PILLAR | 41 | _ | 65 | = | 24 | LA+ LA+ |
| - 11 | DOR PAnel | 51 | _ | 63 | = | 12 | LAT |
| 11 | 5111 | 42 cm | _ | 55 cm | = | 13 | LA+ |
| 11 | SIDE KICK DAM | el 41 | _ | 54 | = | 13 | |
| 11 | B-PILLARS SILL AREAS | 4 | _ | 0 | = | | |
| | Sill AREA | • | | | = | | |
| !1 | TOE PAN | 51 | _ | 57 | = | 6 | |
| - | | | _ | - | = | | |
| | | | - | | - | | |
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| | | | _ | | `= | | |

. Page 2

| OCCUPANT AR | EA INTRUSION |
|---|---|
| Note: If no intrusions, leave variables IV47-IV86 blank. | INTRUDING COMPONENT |
| Dominant Location of Introding Magnitude Crush Intrusion Component of Intrusion Direction | Interior Components (01) Steering assembly (02) Instrument panel left (03) Instrument panel center |
| 1st 47. 1 1 48. 0 6 49. 3 50. 3 | (04) Instrument panel right (05) Toe pan √(06) A (A1/A2)-pillar |
| 2nd 51. 1 52. 1 7 53. 2 54. 3 | (07) B-pillar (08) C-pillar (09) D-pillar (10) Door panel (side) |
| 3rd 55. 1 1 56. 2 7 57. 2 58. 3 | (12) Roof (or convertible top) (13) Roof side rail (14) Windshield (15) Windshield header |
| 4th 59. 1 1 60. 10 61. 2 62. 3 | (16) Window frame √(17) Floor pan (includes sill) (18) Backlight header (19) Front seat back |
| 5th 63. / / 64. 0 5 65. / 66. 3 | (20) Second seat back (21) Third seat back (22) Fourth seat back (23) Fifth seat back |
| 6th 67. 1 1 68. 0 2 69. 1 70. 2 | (24) Seat cushion (25) Back door/panel (e.g., tailgate) (26) Other interior component (specify): |
| 7th 71 72 73 74 | (27) Side panel - forward of the A (A2)-pillar (28) Side panel - rear of the A (A2)-pillar |
| 8th 75 76 77 78 | (30) Hood (31) Outside surface of this vehicle (specify): |
| 9th 79 80 81 82 | (32) Other exterior object in the environment (specify): (33) Unknown exterior object (97) Catastrophic (98) Intrusion of unlisted component(s) |
| 10th 63 84 85 86 | (specify):(99) Unknown |
| LOCATION OF INTRUSION Front Seat Fourth Seat | MAGNITUDE OF INTRUSION (1) ≥ 3 centimeters but < 8 centimeters (2) ≥ 8 centimeters but < 15 centimeters |
| (11) Left (41) Left (12) Middle (42) Middle | (3) ≥ 15 centimeters but < 30 centimeters (4) ≥ 30 centimeters but < 46 centimeters |
| (13) Right (43) Right Second Seat (97) Catastrophic (21) Left (98) Other enclosed (22) Middle area (specify) | (5) ≥ 46 centimeters but < 61 centimeters (6) ≥ 61 centimeters (7) Catastrophic (9) Unknown |
| (23) Right (99) Unknown Third Seat (31) Left (32) Middle (33) Right | DOMINANT CRUSH DIRECTION (1) Vertical (2) Longitudinal (3) Lateral (7) Catastrophic (9) Unknown |

| | (All M | lecourements Are in Centimet | ere) | | |
|------------------|--------|------------------------------|------|-------------|--|
| COMPARISON VALUE | - | DAMAGE VALUE | = | DEFORMATION | |
| | - | | - | | |
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| | - | | 8 | | |
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| 87. Steering Column Type (1) Fixed column (2) Tilt column (3) Telescoping column | 93. Location of Steering Rim/Spoke Deformation (00) No steering rim deformation Quarter Sections (01) Section A |
|--|---|
| (4) Tilt and telescoping column (8) Other column type (specify): (9) Unknown | (02) Section B (03) Section C (04) Section D |
| (0, 0) | Half Sections (05) Upper half of rim/spoke (06) Lower half of rim/spoke (07) Left half of rim/spoke (08) Right half of rim/spoke |
| 88. Blank (This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS. | (09) Complete steering wheel collapse (10) Undetermined location (99) Unknown |
| | INSTRUMENT PANEL |
| 89. Blank (This variable is left blank | |
| so that numbering consistency can be maintained with the 1988-94 CDS. | kilometers—Code to the nearest 1,000 kilometers (000) No odometer (001) Less than 1,500 kilometers (500) 499,500 kilometers or more (999) Unknown |
| 90. Blank (This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS. | _93358mlss x 1.6083 - 150245 thumburn Source: ODOMETER |
| 91. Blank (This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS. | 95. Instrument Panel Damage from Occupant Contact? (0) No (1) Yes (9) Unknown |
| 92. Steering Rim/Spoke Deformation Code actual measured deformation to the nearest centimeter (00) No steering rim deformation (01-14) Actual measured value in centimeters | 96. Knee Bolsters Deformed from Occupant Contact? (0) No (1) Yes (8) Not present (9) Unknown |
| (15) 15 centimeters or more (98) Observed deformation cannot be measured (99) Unknown | 97. Did Glove Compartment Door Open During Collision(s)? (0) No (1) Yes (8) Not present (9) Unknown |
| | |



Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.

Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

| | | | _ | | CUPANT CONTAC | | | 0 |
|---|--|--|---|---|---|---|---|--|
| Conta | Interior Component Contacted | Occupant No. If Known | Re | lody egion if nown | Supporting Ph | | vidence | Confidence Level of Contact Point |
| A | DASh | 1 | 1 4 | es | cracked | _ | | 2 |
| В | | | | | | | | |
| c | | | | | | | | |
| | | | +- | | | | | |
| D | | | - | | | | | |
| E | | <u> </u> | - | | | | | |
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| M | | <u></u> | | | | | | |
| N | | | | | <u> </u> | | | <u>l</u> |
| (08) (09) (10) (11) (12) (13) | of codes 04 and 05) Steering column, transiselector lever, other att Add on equipment (e.g deck, air conditioner) Left instrument panel Center instrument panel Right instrument panel Glove compartment do Knee bolster Windshield including of | tachment ., CB, tape and below al and below and below or | (28) RIGHT (30) (31) (32) (33) | Left side of Left | | (51) (52) (53) (54) FLOOR (56) | | e top e pan) nounted |
| | of the following: front A (A1/A2)-pillar, instru- mirror, or steering assesside only) Windshield including or of the following: front | ment panel, embly (driver ne or more header, | | Right side Right side one or me frame, wi B pillar, o | window glass or frame window glass including ore of the following: indow sill, A (A1/A2)-piller, or roof side rail. | (58) (59) REAR (60) | console Parking brake han Foot controls inclubrake Backlight (rear with | dle Iding perking |
| | A (A1/A2)-pillar, instrut mirror (passenger side Driver side air bag com | only) | (37) | | ht side object (specify): | (61) | Backlight storage | rack, door, etc |
| (16) | A (A1/A2)-pillar, instrus mirror (passenger side Driver side air bag corr cover Passenger side air bag | only) | (38) | Right side | window sill | (61) (62) | | rack, door, etc |
| (16) (17) | A (A1/A2)-piller, instrumerror (passenger side Driver side air bag correcover | only) npartment | (38) INTERIO (40) | Right eide OR Seat, bac | s window sill | | • | rack, door, etc |
| (16) (17) (18) | A (A1/A2)-pillar, instrustrustrus mirror (passenger side Driver side air bag corrector Passenger side air bag compartment cover | only) hpartment by exterior | (38) INTERIO (40) (41) | Right side OR Seat, bac Belt restr | e window sill ck support eint webbing/buckle eint B-piller | | • | rack, door, etc (apecify): |
| (16) (17) (18) (19) | A (A1/A2)-pillar, instrumirror (passenger side Driver side air bag comcover Passenger side air bag compartment cover Windshield reinforced (object (specify): Other front object (specify) | only) hpartment by exterior | (38) INTERIO (40) (41) (42) | Right eide DR Seat, bac Belt restr Belt restr attachme Other res | sk support sint webbing/buckle sint B-piller ont point straint system component | | CONFIDENCE LE | rack, door, etc (apecify): |
| (16) (17) (18) (19) LEFT SI (20) | A (A1/A2)-pillar, instrumirror (passenger side Driver side air bag comcover Passenger side air bag compartment cover Windshield reinforced (object (specify): Other front object (specify) | only) spertment by exterior cify): ce, ermrests | (38) INTERIO (40) (41) (42) (43) (44) | Right side OR Seat, bac Belt restr ettachme Other res (specify): Head res Air bag | sk support sint webbing/buckle sint B-piller ont point straint system component | | Other rear.object CONFIDENCE LE | rack, door, etc (apacify): SVEL OF DINT |

| S: Encode the data for each app below. Restraint systems sh Assessment Form. | olicable front seat position. The attributional be assessed during the vehicle in | rte for the variables may be found |
|--|--|--|
| | | |
| | AIR BAGS | |
| | Left | Right |
| Availability/Function | \circ | 0 |
| Deployment | | |
| Failure | | |
| Not equipped/not evailable Air bag functional Air bag disconnected (specify): Air bag not reinstalled | Air Bag System Deployment (0) Not equipped/not available (1) Air bag deployed during accident (as a result of impact) (2) Air bag deployed inadvertently just prior to accident (3) Air bag deployed, accident sequence undetermined (4) Nondeployed (5) Unknown if deployed (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical) (9) Unknown | Are There indications of Air Beg System FaBure? (0) Not equipped/not available (1) No (2) Yes (specify): (9) Unknown |
| | AUTOMATIC BELTS | |
| | Left | Right |
| Availability/Function | 0 | 0 |
| Use | | |
| Туре | | |
| Proper Use | | |
| Failure Modes | | |
| Elity/Function Not equipped/not evailable 2 point automatic belts 3 point automatic belts Automatic belts - type unknown -functional Automatic belts destroyed or rendered inoperative Unknown atic (Passive) Belt System Use Not equipped/not available/destroyed or rendered inoperative Automatic belt in use Automatic belt in use (manually disconnected, motorized track inoperative) Automatic belt use unknown Unknown atic (Passive) Belt System Type Not equipped/not available Non-motorized system Motorized system | Proper Use of Automatic (Passive) Belt System (0) Not equipped/not available/not used (1) Automatic belt used properly (2) Automatic belt used properly with child safety seat Automatic Belt Used Improperly (3) Automatic shoulder belt worn under arm (4) Automatic shoulder belt worn behind back (5) Automatic belt worn around more than one person (6) Lep portion of automatic belt worn on abdomen (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): (8) Other improper use of sutomatic belt system (specify): | Automatic (Passive) Belt Failure Medes During Accident (O) Not equipped/not available/not in use (1) No automatic belt failure(s) (2) Torn webbing (stretched webbing not included) (3) Broken buckle or latchplate (4) Upper anchorage separated (5) Other anchorage separated (specify): (6) Broken retractor (7) Combination of above (specify): (8) Other automatic belt failure (specify): (9) Unknown |
| | Peployment Failure System Aveilability/Function Not equipped/not available Air bag functional Air bag disconnected (specify): Air bag not reinstalled Unknown Availability/Function Use Type Proper Use Failure Modes atic (Passive) Belt System Bity/Function Not equipped/not available 2 point automatic belts 3 point sutomatic belts Automatic belts - type unknown -functional Automatic belts destroyed or rendered inoperative Unknown atic (Passive) Belt System Use Not equipped/not svailable/destroyed or rendered inoperative Unknown atic (Passive) Belt System Use Not equipped/not system Use Automatic belt in use (manually disconnected, motorized track | Proper Use Failure Modes Availability/Function Use Type Proper Use Failure Modes Type Proper Use of Automatic (Passive) Belt System (I) Not equipped/not available/not used 11 Automatic belt used properly 2 (2) Automatic belt used properly 2 (3) Automatic belt used properly 3 Automatic belt worn under am Automatic belt in use Automatic belt in use Automatic belt in use (manually disconnected, motorized track inoperative Automatic belt use unknown Unknown Take Belt System Type Not equipped/not available (Type Type Use of Automatic (Passive) Belt System Use (Type Type Use of Automatic Passive) Belt System Use (Type Type Use of Automatic Passive) Belt System Use (Type Type Use of Automatic Passive) Belt System Use (Type Type Use of Automatic Passive) Belt System Use (Type Type Use of Automatic belt used Improperly with child safety seat (specify): Type Type Use of Automatic belt used Improperly (Type Type Use of Automatic belt used International Passive) (Type Type Use of Automatic Passive) Belt System Use (Type Type Use of Automatic (Passive) Belt System Use (Type Type Use of Automatic (Passive) Belt System Use (Type Type Use of Automatic (Passive) Belt System Use (Type Type Use of Automatic (Passive) Belt System Use (Type Type Use of Automatic (Passive) Belt System Use (Type Type Type Use of Automatic (Passive) Belt System Use (Type Type Type Use Office Type Use Type Us |

MANUAL RESTRAINTS

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Ocupant Assessment Form.

If a Child safety seat is present, encode the data on the back of this page.

If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

| _ | | Left | Center | Right |
|----------|---------------------|------|--------|-------|
| E | Availability | 4 ., | 0 | 4. |
| ī | Evidence of usage | 709 | | 04. |
| R | Used in this crash? | 04 | | 04 |
| S | Proper Use | | | |
| <u>'</u> | Failure Modes | 1 | | |
| | Availability | 3' | | 3 |
| Ĕ | Evidence of usage | 00 | | 00 |
| Č | Used in this crash? | | | |
| OZOJE | Proper Use | | | |
| D | Failure Modes | | | |
| | Availability | | | |
| O T | Evidence of usage | | | |
| Ĥ | Used in this crash? | | | |
| E | Proper Use | | | |
| R | Failure Modes | | | |

| Manual | (Activa) | Belt System | Availability |
|--------|----------|--------------------|--------------|
| manua | IMCUVO/ | Dell Statem | |

- (O) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt (4) Lap and shoulder belt
- (5) Belt available type unknown

Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify):
- (9) Unknown

Manual (Active) Belt System Use

- (00) None used, not available, or belt
- removed/destroyed (O1) Inoperable (specify):
- (02) Shoulder belt (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used - type unknown
- (08) Other belt used (specify):
- (12) Shoulder belt used with child safety seat (13) Lap belt used with child safety seat
- (14)Lap and shoulder belt used with child
- safety seat (15) Belt used with child safety seat -
- type unknown (18) Other belt used with child safety seat
- (specify): (99) Unknown if belt used

Proper Use of Manual (Active) Belts

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):
- (8) Other improper use of manual belt system (specify):
- (9) Unknown

Manual (Active) Belt Failure Modes During Accident

- (0) No manual belt used or not available (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate(4) Upper anchorage separated
- (5) Other anchorage separated (specify):
- (6) Broken retractor
- (7) Combination of above (specify):
- (8) Other manual belt failure (specify):
- (9) Unknown

| | | | | er in the first row and complete the column below |
|-----------|--|---------------|-----|--|
| Wh the | en a child safety seat is present enter the occupant's number using the codes list | ed below. Com | ple | ete a column for each child safety seat present. |
| Oc | cupant Number | | | |
| 1. | Type of Child Safety Seat | | | |
| 2. | Child Safety Seat Orientation | | | |
| 3. | Child Safety Seat Harness Usage | | | |
| 4. | Child Safety Seat Shield Usage | | | |
| 5. | Child Safety Seat Tether Usage | | | |
| 6. | Child Safety Seat Make/Model | Specify | Be | elow for Each Child Safety Seat |
| 1. | Type of Child Safety Seat | | 3. | Child Safety Seat Harness Usage |
| | (0) No child safety seat (1) Infant seat | | 4. | Child Safety Seat Shield Usage |
| | (2) Toddler seat(3) Convertible seat | | 5. | Child Safety Seat Tether Usage Note: Options Below Are Used for Variables 3-5. |
| | (4) Booster seat(7) Other type child safety seat (specif | 'y): | | (00) No child safety seat |
| | (8) Unknown child safety seat type (9) Unknown if child safety seat used | | | Not Designed with Harness/Shield/Tether (01) After market harness/shield/tether added, not used |
| 2. | Child Safety Seat Orientation | | | (02) After market harness/shield/tether used (03) Child safety seat used, but no after market |
| | (00) No child safety seat Designed for Rear Facing for This Age/Weight (01) Rear facing | | | harness/shield/tether added (09) Unknown if harness/shield/tether added or used |
| | (01) Rear facing(02) Forward facing(08) Other orientation (specify): | | | Designed With Harness/Shield/Tether (11) Harness/shield/tether not used (12) Harness/shield/tether used |
| | (09) Unknown orientation | - | | (19) Unknown if harness/shield/tether used |
| | Designed for Forward Facing for This Age/Weight | | | Unknown If Designed With Harness/Shield/Tether (21) Harness/shield/tether not used (22) Harness/shield/tether used |
| - | (11) Rear facing (12) Forward facing (18) Other orientation (specify): | | | (29) Unknown if harness/shield/tether used |
| | (19) Unknown orientation | _ | _ | (99) Unknown if child safety seat used |
| | Unknown Design or Orientation For Th Age/Weight, or Unknown Age/Weight | nis | б. | Child Safety Seat Make/Model (Specify make/model and occupant number) |
| | (21) Rear facing(22) Forward facing(28) Other orientation (specify): | | | |
| | (29) Unknown orientation | _ | | · |
| | (99) Unknown if child safety seat use | od . | | |

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NACRIT

HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

| | | Left | Center | Right |
|--------|----------------------------|----------|--------|-------|
| F | Head Restraint Type/Damage | 1 | | 1 |
| 1 | Seat Type | 02 | | 02 |
| RS | Seat Performance | 8 | | 1 • |
| T | Seat Orientation | 1 | | 1 |
| S | Head Restraint Type/Damage | 0 | 0 | 0 |
| E | Seat Type | 05 | 05 | 05 |
| 0 N | Seat Performance | | / | 1 |
| Ď | Seat Orientation | , | , ' | 1 |
| т | Head Restraint Type/Damage | , | | |
| Ĥ | Seat Type | | | |
| Ŕ | Seat Performance | | | |
| D | Seat Orientation | | | |
| 0 | Head Restraint Type/Damage | | | |
| Ť | Seat Type | | | |
| E | Seat Performance | | | |
| R | Seat Orientation | | | |

| Head | Restraint | Type/Damage | by | Occupant | at | This |
|-------|------------|-------------|----|----------|----|------|
| Occur | pant Posit | ion | | | | |

- No head restraints (0)
- (1)
- Integral no damage Integral damaged during accident
- (3)
- Adjustable no damage Adjustable damaged during accident (4)
- (5)
- Add-on no damage Add-on damaged during accident (6)
- (8) Other Specify):
- (9) Unknown

Seat Type (this Occupant Position)

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify):
- (10) Box mounted seat (i.e., van type)
- (99) Unknown

Seat Performance (this Occupant Position)

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed specify:
- (4) Seat tracks/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify):
- (7) Combination of above (specify):
- (8) Other (specify): Bent
- (9) Unknown

Seat Orientation (this Occupant Position)

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify):
- (9) Unknown

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE (I.E., UNUSUAL OCCUPANT **CONTACT PATTERN**)

| omplete the following if the researce the vehicle. Code the appropriate JECTION No [X] Yes [] escribe indications of ejection and | b data on the C | Occupant Ass | al ejection(| s): | ted from or entrap | ped |
|---|---|------------------------------------|--------------|---|--|-----|
| Occupant Number | | | | | | |
| Ejection (Note on Vehicle Interior Sketch) Ejection Area | | | | | | |
| Ejection Medium | | | | | | |
| jection (1) Complete ejection (2) Partial ejection (3) Ejection, Unknown degree (9) Unknown jection Area (1) Windshield (2) Left front (3) Right front (4) Left rear (5) Right rear (6) Rear | (9) Unkn (9) Unkn (1) Door (2) Nonf (3) Fixed | r area (e.g., b up, etc.) (spec | fy): | (8) Other (9) Unkno Medium State to Impact) (1) Open (2) Close | itus (Immediately d al structure | |
| ENTRAPMENT No [X] Ye Describe entrapment mechanism: _ | | | | | | |
| Component(s): | | | | | | |

Appendix F:

NASS CDS INTERVIEW FORM:

CASE VEHICLE DRIVER



U.S. Department of Transportation

National Highway Traffic Safety Administration

INTERVIEW FORM (A) NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINGS DATA SYSTEM

| 1. Primary Sampling Unit Number $\frac{1}{2}$ | Interviewee(s) Role or Name(s): |
|---|--|
| 2. Case Number - Stratum 9 4 1 6 | DRIVER JOWNER |
| 3. Vehicle Number | * |
| Review all available information and interview q acquisition of all pertinent data. | juestions prior to conducting interview(s) to ensure the |
| If the driver was not the person interviewed, wa | as an appointment made for a follow-up interview? |
| DRIVER'S DESCRI | PTION OF ACCIDENT EVENTS |
| | |
| I was S/B or | no controls she was |
| past on At | Intersection she didn't |
| | |
| Front Driver Sin | sign. And I hit her in E fender wheel arka. |
| we slid East to | corner after impact. |
| I was facing & | SouthEAST she wa E |
| J | |
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| | |
| OCCUPANT'S DESC | CRIPTION OF ACCIDENT EVENTS |
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| | |

ACCIDENT DIAGRAM



The use of this diagram is optional. It may serve to aid in relating interviewee accident trajectory data (i.e., pre-impact to FRP orientations) to identifiable objects in the environment.

NORTH

VCRY FAMILIAR

NO 9/ASSES.

Dewel CAR but familiar

Pickup i, Judo Class.



U.S. Department of Transportation

National Highway Traffic Safety

INTERVIEW FORM (B)

NATIONAL ACCIDENT SAMPLING SYSTEM

| Administration | CRASHWORTHINESS DATA SYSTEM |
|---|--|
| 1. Primary Sampling Unit Number 1. 2. Case Number - Stratum 9416 | Interviewee(s) Role or Name(s): DRIVER |
| 3. Vehicle Number | |
| | T DATA QUESTIONS |
| ACCIDEN | T DATA GUESTIONS |
| 1. Can you tell me in which direction you were trav | veling? 6a. What actions did you take? |
| [] North [] East [] West | [] Braking with lock-up [] Braking without lock-up |
| (Optional - Where were you coming from or going | • |
| 194.51 | Steering left |
| In which lane were you traveling? (Note: Lane 1 is designated as the right curb lane) | [] Steering right [] Other (specify): |
| (1) [2] [3] [4] [] Other (specify): | |
| | 7. Where was your vehicle at the time of the collision? |
| Can you remember your <u>estimated travel speed</u> (in per hour) before the accident? | [] Original travel lane [] Different travel lane n miles Description Description |
| [] Stopped | Was your <u>travel speed at the time of the collision</u> different from your previous travel speed? |
| 4. Just before the accident, can you tell me what you intending to do or were doing? ——————————————————————————————————— | u were [] Lower [] Higher [] Unknown |
| Going straight [] Stopped [] slowing [] Accelerating [] Turning left [] Turning right [] Changing lanes to left [] Changing lanes to | 8a. Can you estimate your speed at the time of the collision? |
| [·] Backing [] Other (specify): | [] Stopped [] 1-10 [] 10-20 [] 20-30 [] 30-40 [] 40-50 [] 50-60 [] 60-70 [] 70+ |
| 5. Did you experience any <u>loss of control</u> due to w conditions or mechanical problems? | 9. Immediately following the collision, can you describe how your vehicle moved to its stopped position? |
| No [] Yes (If yes, describe below) | |
| 6. Did you have to take any <u>avoidance actions prior accident?</u> No - Go to question 7 Yes - Go to question 6a | 10. Can you tell me how many collisions your vehicle had during the accident and the source of the collisions? ON Y MPACT |

| onal Accident Sampling System-Crashworthiness Date | |
|---|---|
| Primary Sampling Unit Number | 3. Vehicle Number |
| Case Number - Stratum 9416 | 4. Occupant Number |
| VEHICLE/DRIVER I | DATA QUESTIONS |
| 1. Can you tell me the year, make, model of your vehicle? 1 9 9 5, Plymouth NEDN Year Make Model | 7b. Were any of the belts removed or not functional prior to the accident? [] No [] Yes (If "Yes", specify which belt and describe problem) |
| 2. Can you describe the damage to your vehicle? | |
| 3. Was there any previous damage to your vehicle that is not related to this accident? No Yes (If "yes", describe below) | 8. Do any of the front belts move along a motorized track when the door is opened or closed? [A No (If "No", go to question 9) [] Yes (If "Yes", what seat location?) [] Left Front [] Right Front |
| 4. Did any of the doors (hatch, tailgate) open during the accident? No [] Yes (If "Yes", describe below) | 8a. Were the motorized belts working properly before the accident? [] No (If "No", describe condition below) |
| 5. Did any of the windows break during the accident? No Second | [] Yes 8b. Were the belts connected to the track prior to the accident? [] No [] Yes [] Unknown |
| 6. Does your vehicle have a glove compartment? [] No [Yes | 9. Do any of the front "seat" belts attach to the door such that when the door is opened the belt travels with the door? No (go to question 10) |
| a. Did the glove compartment door come open during the accident? X No [] Yes | 9a. Does this belt come across the? [] Chest only [] Lap and chest |
| [] Unknown 7. Does your vehicle have "seat belts"? [] No (If "No", go to question 7b) [X] Yes (If "Yes", go to question 7a) | 9b. Was this belt connected prior to the accident? [] No [] Yes [] Unknown |
| a. Can you describe the type of seat belt for each seat? Driver's seat [] Lap [Lap and shoulder Front seat middle [] Lap [Lap and shoulder Front seat right [] Lap [] Lap and shoulder | AIR BAGS 10. Is your vehicle equipped with a driver's side air bag? [] No (go to question 11) |
| Rear seat left [] Lap [] Lap and shoulder Rear seat middle [] Lap [] Lap and shoulder Rear seat right [] Lap [] Lap and shoulder | |
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| National Accident Sampling System-Crashworthiness Date | a System: Interview Form (B) Page 4 |
|---|---|
| 1. Primary Sampling Unit Number 1 | 3. Vehicle Number |
| 2. Case Number - Stratum 9416 | 4. Occupant Number |
| VEHICLE/DRIVER DATA C | QUESTIONS (CONTINUED) |
| | OPTIONAL |
| 12h. Were any of these items added after you owned the child safety seat? [] Yes | If you do not know where the vehicle is or if the owner's permission is needed for inspection. 15. Do you know where the vehicle is currently located? |
| [] Unknown 12i. Were any of these items used during the accident? [] Yes (If "Yes", check all that apply) | 16. May I take a look at your vehicle to assess the damage? [] No [] Yes |
| [] No [] Unknown | DRIVER ONLY |
| CARGO WEIGHT AND MILEAGE | 17. What race do you consider yourself? |
| 13. Was there any cargo in your vehicle? [] No (If "No", go to question 14) [] Yes (If "Yes", go to question 13a) [] Unknown | |
| 13a. Can you estimate the weight of the cargo? 25'30 lbs. Cargo description 64m b #4. 1enns Packets | 18. Are you of hispanic origin? |
| 14. Can you tell me the mileage on the vehicle? | |
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| tional Accident Sampling System-Crashworthiness De 1. Primary Sampling Unit Number | ehicle Number | |
|---|--|--|
| 2. Case Number - Stratum 9 4 1 6 4. Occupant Number O 1 VEHICLE ROLLOVER/FIRE QUESTIONS | | |
| | | |
| 1. Did the vehicle rollover during the accident? V No (If "No", go to question 2.) Yes Unknown (skip to question 2) | 2. Did the vehice experience a fire? [] No (If "No", skip to Occupant Data Questions) [] Yes [] Unknown | |
| a. Describe where the rollover began. [] On roadway [] On shoulder | 2a. Describe where the fire started or where smoke was fire seen. [] Under the hood [] Where the hood [] [] [] [] [] [] [] [] [] [| |
| On roadside or median Unknown | seen. [] Under the hood | |
| b. What caused the vehicle to rollover? [] Other vehicle (specify vehicle number): [] Contacted object (specify): [] Other cause (specify): | [] From other involved vehicle [] Unknown | |
| [] Unknown | 2b. Did the fire start with the electrical system? [] No [] Yes (specify): Unknown ST ADR DD22 e | |
| c. Describe which direction the vehicle rolled. [] Toward the right | AR WASAGAINFIOTORE | |
| [] Toward the left [] End-over-end [] Unknown | 2c. Did the fire start with the fuel system? [No (if "No", skip to Occupant Data Questions) [] Yes (go to question 2d) [] Unknown | |
| d. Estimate the number of sides (including the top and bottom) which contacted the ground during the rollover? 1 side | 2d. Describe which part of the fuel system that may ha been involved? [] No | |
| [] 2 sides [] 3 sides | [] Yes (specify): | |
| [] 4 sides [] Unknown | Fuel tank Fuel lines Engine compartment (specify component known) | |
| e. Did the vehicle roll over more than one complete turn (more than 4 sides)? [] No (If "No", go to question 1g.) | [] Unknown | |
| [] Yes | (Go To Occupant Data Questions) | |
| If. Estimate the number of complete turns. [] No [] Yes (specify): | COMMENTS ON ROLLOVERS AND FIRES | |
| [] Unknown | See above | |
| g. When the verticle stopped rolling over, which side of the vehicle was in contact with the ground? [] Left side | | |
| [] Right side [] Top | | |
| [] Wheels [] Unknown | | |
| | | |
| | | |

| ational Accident Sampling System-Crashworthiness Date | A A | |
|---|---|--|
| 1. Primary Sampling Unit Number | 3. Vehicle Number | |
| 2. Case Number - Stratum. 9416 | 4. Occupant Number | |
| OCCUPANT DATA QUESTIONS | | |
| Was there anyone else in your vehicle at the time of the accident? No (If "No", go to question 4) Yes (If "Yes", specify number in question 2 below and then go to question 3) Unknown | 5d. Were you (Was he/she) Sitting upright or Leaning to left side, or Leaning to right side? OCCUPANT EJECTION | |
| 2. How many? (1) One other person [2] Two other persons [3] Three other persons [4] Four other persons [5] Five other persons [6] Six other persons [7] Seven or more other persons (specify number:) 3. Where was this person sitting? (Circle seating positions) | S. Were you (Was he/she) or any part of your (his/her) body thrown from the vehicle during the accident? No (If "No", go to question 7) | |
| [12] [13] [21] [22] [23] [31] [32] [33] [] Other (specify:) | 7. Were you (Was he/she) wearing a seat belt just before the accident? [] No (If "No", go to question 8) | |
| OCCUPANT CHARACTERISTICS | [] Yes [] Unknown | |
| 4. Can I have your (his/her) height, weight, age, and sex? Height 58" Weight 160 Age 33 Sex: 14 Male [] Female | 7a. Were you (Was he/she) wearing the [] Lap belt? [] Lap and Shoulder belt? [] Shoulder belt? | |
| 5. Can you tell me how you (he/she was) were sitting in your vehicle? WRIGHT | 7b. Can you describe how you were (he/she was) wearing the lap belt? [] Across the stomach Low on lap [] Other (specify:) [] Unknown | |
| 5a. Can you describe the location of your (his/her) feet just prior to the collision? - Bon GAS other on to FPAN | 7c. Can you describe how you were (he/she was) wearing the shoulder belt? Over the shoulder Under the arm Behind the back Behind the seat Other (specify:) | |
| 5b. Can you describe the location of your (his/her) arms? Both on wheel | 7d. Did any part of the belt system break or tear? X No Yes (If "Yes", describe) Unknown | |
| 5c. Was your (his/her) back resting against the seat back rest? [] No (If "No", describe the position) **No Yes | 8. Were you (Was he/she) trapped in the vehicle? [X] No [] Yes (If "Yes", describe) | |
| [] Unknown | [] Unknown | |

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National Accident Sampling System-Crashworthiness Data System: Interview Form (B)

Page 7

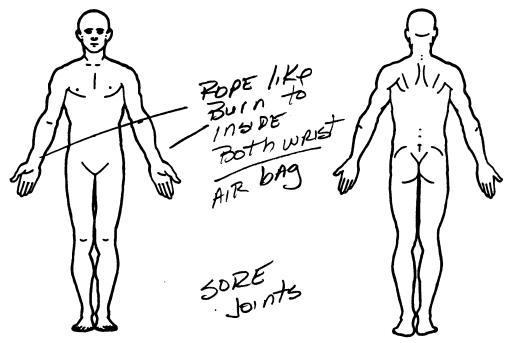
PSU Number / 0 Case Number Stratum 9 4 / 6 Vehicle Number 0 / Occupant Number 0 /

INJURY DATA FROM INTERVIEWEE(S)

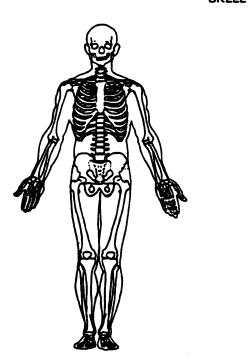
Indicate the Location, Lesion, Detail, and Source of all injuries. Specify interviewee(s):_

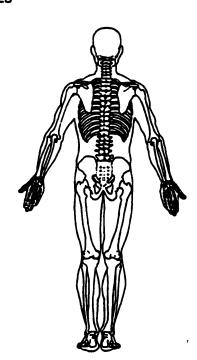
DRIVER

SOFT TISSUE/INTERNAL INJURIES



SKELETAL INJURIES





The space provided on the back of this page may be used to document injuries noted by the interviewee(s).

| lational Accident Sampling System-Crashworthiness Data System: Interview Form (B) Page 8 | | | | |
|--|---|--|--|--|
| 1. Primary Sampling Unit Number | 3. Vehicle Number | | | |
| 2. Case Number - Stratum 9416 | 4. Occupant Number | | | |
| OCCUPANT INJURY | DATA QUESTIONS | | | |
| 1. Were you (Was he/she) injured? [] No (If "No", skip to question 7) [X] Yes (If "Yes", complete Occupant Injury Questions) [] Unknown 2. Did you (he/she) receive any cuts, abrasions, or bruises? [] No (go to question 3) [X] Yes (If "Yes", record the exact location(s) and size on the manikin(s).) [] Unknown | 5a. Do you know what caused this injury? No Yes (If "Yes", specify the component(s) on the manikin(s).) Unknown 6. Did you (he/she) suffer any joint sprains or muscle strains? No (If "No", go to question 7) Yes (If "Yes", specify on the manikin(s), and then | | | |
| 2a. Do you know what caused your (his/her) injury(s)? [] No [] Yes (If "Yes", specify the component(s) or object(s) on the manikin(s).) [] Unknown 3. Did you (he/she) experience any broken bones? | go to question 6a.) [] Unknown 6a. Do you know what caused the injury(s)? [] No [] Yes (If "Yes", specify the component(s) on the manikin(s).) [X] Unknown | | | |
| No (If "No", go to question 4) Yes (If "Yes", record the exact location(s) and type of fracture(s) on the manikin(s), and then go to question 3a.) Unknown | 7. Did you (he/she) receive any treatment? [≥() No (If "No", go to question 8) [] Yes (If "Yes", go to question 7a or return to question 2.) | | | |
| 3a. Do you know what caused the injury(s)? [] No [] Yes (If "Yes", specify the component(s) or object(s) on the manikin(s).) [] Unknown | 7a. Were you (Was he/she) treated by (check all that apply): [] Hospital/trauma center? (specify hospital name): [] Medical clinic [] Out patient surgery? (specify medical | | | |
| 4. Did you (he/she) injure your (his/her) head? (skull/brain?) ⋈ No (If "No", go to question 5) [] Yes (If "Yes", describe the type of injury(s) on the manikin(s), then go to question 4a.) [] Unknown | facility:) [] Paramedics or first aid at the scene? [] A doctor in his/her office? [] Treated at home? None of the above, go to question 8. | | | |
| 4a. Do you know what caused the injury(s)? [] No [] Yes (If "Yes", specify the component(s) on the manikin(s).) [] Unknown | 7b. Were you (Was he/she) treated and released from the emergency room? [] No (If "No", go to question 7c.) [] Yes (If "Yes", go to question 7e.) | | | |
| 5. Were any of your (his/her) internal organs injured? [X] No (If "No", go to question 6) [] Yes (If "Yes", thoroughly describe the type of injury(s) and specify the internal organ(s) injured on the manikin(s), and then go to question 5a.) [] Unknown | 7c. 'Were you (Was he/she) hospitalized? No (If "No", give an explanation) Yes (If "Yes", go to question 7d.) 7d. How many days were you (was he/she) in the hospital? | | | |

| ional Accident Sampling System-Crashworthiness Data | |
|---|---|
| . Primary Sampling Unit Number | 3. Vehicle Number |
| . Case Number - Stratum 9416 | 4. Occupant Number |
| OCCUPANT INJURY DATA | QUESTIONS (CONTINUED) |
| 7e. Have you (Has he/she) received any follow-up treatment? No Yes (If "Yes", describe:) Unknown | 8. Have you (he/she) lost any days from work or school (college)? [/- No [] Yes (If "Yes", determine the number of days lost) |
| 7f. In order to achieve the best possible scientific data regarding your (his/her) injury(s), we need to obtain a copy of your (his/her) medical reports. Would you (he/she) sign a medical release form? [] No [] Yes (If "Yes", mail or present the form for signature.) | |
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Hospital Emergency Department , WI Aftercare Instructions

MOTE: We examined and treated today on an emergency basis only. This was not a substitute for, or an effort to provide, complete medical care. In most cases, you must let your doctor check again. Report to your doctor any new or lasting problems. We cannot recognize and treat all injuries or illnesses in one Emergency Department visit. If had X-rays, we will review them within a day. We will call you if there are new suggestions. After you leave the hospital, FOLLOW THE INSTRUCTIONS BELOW.

ABRASIONS (Scrapes).

Your child has scraped a thin layer off the surface of the skin. Until that heals, it will be more likely to get infected. You can help prevent infection and make the wound more comfortable by using an antibiotic ointment. Bacitracin is a good choice. You can get this without a prescription at the drug store. Clean the abrasion delly with mild soap & water. Then put on a thin layer of the ointment.

Watch carefully for signs of infection. They include increasing redness, pain or swelling, pus or red streaks coming from the wound, or fever. If you see any of these, <u>CALL YOUR DOCTOR</u>. Otherwise, expect it to heal well in 1 to 2 weeks.

BURNS (First Degree Burn).

A first degree burn has made the outer layer of skin red and sore. The skin is painful at first. Within hours the pain will start to go away. The pain should be gone in a day or two, but a blister may form. The skin should heal well within a week. It is not likely to leave a scar.

Watch for these signs of infection:

- worsening pain, redness or swelling.
- pus or red streaks coming from the wound.
- fever.

If has any new or severe symptoms, <u>CALL YOUR</u>

CHILD'S DOCTOR RIGHT AWAY.

HEAD INJURY (Concussion).

A concussion is any injury that shakes up the brain. Your child has had a concussion. The doctor found no serious brain or nerve problems. Your child should have no lasting problems from this injury.

Rarely, children have trouble later, even though the doctor's exam was normal. Wa ch your child carefully during

the next 24 hours. Have your child rest quietly for about a day. Offer liquids and simple foods.

If your child has any of the following, <u>CALL YOUR DOCTOR</u> RIGHT AWAY.

- -Repeated vomiting.
- -Headache that gets worse or lasts more than a day.
- -Unequal pupils (one large and one small).
- -Trouble seeing, walking or using the arms.
- -Dizziness, confusion, weird behavior or passing out.
- -Trouble in waking your child.
- -Convulsions.

Children react more strongly to head injuries. They can become pale, look sleepy, and vomit a few times. Watch closely if your child has any of these signs.

Wake your child to check for these problems every EIGHT hours.

ANTIBIOTIC OINTMENT.

Antibiotic ointments fight and prevent skin infections caused by bacteria. They are very safe medicines. Side effects are rare.

If your child has any new or severe symptoms while using the ointment, <u>CALL YOUR DOCTOR RIGHT AWAY</u>.

Leave the wound open to air. Use this medicine in the following dose: Gently wash the wound and put a thin layer of the ointment on it twice a day.

ACETAMINOPHEN DOSING (Tylenol, Panadol, Tempra, Etc.).

Use the table below to find your child's Tylenol dose. Find your child's age or weight on the left. Use the dose on the same line that matches the type of Tylenol that you will give.

| Age | Weight | mg's | Drops | Elixer | Chewables | Adult |
|----------|-----------|------|------------|--------|-----------|------------|
| | #'s | | ml's | tsp. | tabs | tabs |
| | | | | l | | 1 |
| 0-3m | 6-11 lbs | 40 | 0.4 | 1/4 | | |
| 4-11m | 12-17lbs | 80 | 0.8 | 1/2 | 1 * | * |
| 12-23 | 18-23lbs | 120 | 1.2 | 3/4 | 1&1/2 | * |
| 2-3yr | 24-35lbs | 160 | 1.6 | 1 | 2 | i * |
| 14-5yr | 36-47lbs | 240 | | 1&1/2 | 3 | |
| • | 48-591bs | • | | 2 | 4 | 1 1 |
| 19-10v | r60-71lbs | 400 | i • | 3 | 6 | 1 |

Hospital Emergency Department , WI Aftercare Instructions for Birthdate: 1985)

| 11 yr|72-95lbs| 480 | * | * | * | 121/2 | | 12 and older may take 2 regular adult tablets | | ______(640mg total)_____

After finding the correct dose, give that every 4 hours as needed for fever or pain. Do not give more than the recommended dose without talking to your doctor. If your child has any new or severe syptoms, <u>CALL YOUR DOCTOR RIGHT AWAY.</u>

CLEAR LIQUID DIET.

For the next 1 - 2 days, your child's stomach and intestines need a rest. A clear liquid diet will help. This diet has foods that are liquid or become liquid at room temperature. You can see through clear liquids.

The following are examples of clear liquids:

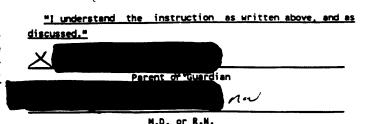
- Strained juices (Apple, orange without pulp)
- Jelio
- Broth or Consomm
- Gatorade
- Watered down caffeine-free soda pop if given without the
- Commercially made clear liquids for children, such as Pedialyte

After a day or two add bland cooked foods to your child's diet. If your child gets worse instead of better, <u>CALL YOUR DOCTOR</u>.

THESE ARE YOUR FOLLOW-UP INSTRUCTIONS! Call Dr. in 3 days if gets worse or doesn't improve. You can reach Dr. at The address is CLINIC Drive, WI

YOU ARE THE MOST IMPORTANT FACTOR IN YOUR CHILD'S RECOVERY.

Follow the instructions carefully. Give medicines as prescribed. Seek further medical treatment or examination as discussed. If has problems that we did not list, CALL YOUR DOCTOR right away. If you can't reach your doctor, come back to the Emergency Department. If you have questions, call us.



SEATBELTS AND CARSEATS.

There is no doubt that seatbelts and carseats save lives. Here in the Emergency Room we see every day how unseatbelted people are hurt much more severely. We always buckle-up! Please do the same!

| National Accident Sampling System-Crashworthiness Data System: Interview Form - Supplement | | | | |
|--|--|--|--|--|
| 1. Primary Sampling Unit Number 1. 2 3. Vehicle Number 2 1 | | | | |
| 2. Case Number - Stratum 9416 4. Occupant Number 03 | | | | |
| OCCUPANT DATA QUESTIONS SUPPLEMENT | | | | |
| 1. Who was the next occupant in your vehicle at the time of the accident? My 50 N | 5d. Were you (Was he/she) [] Sitting upright or [] Leaning to left side, or [] Leaning to right side? | | | |
| <i>,</i> | OCCUPANT EJECTION | | | |
| 2. Occupant Number 2 of 2. | 6. Were you (Was he/she) or any part of your (his/her) body thrown from the vehicle during the accident? No (If "No", go to question 7) Yes (If "Yes", go to question 6a) Unknown | | | |
| 3. Where were you (was this person) sitting? (Circle seating positions) [12] [13] [21] [22] [23] [31] [32] [33] | 6a. Can you remember out of what area of the vehicle you were (he/she was) thrown? [] No [] Yes (Describe:) OCCUPANT RESTRAINT | | | |
| [] Other (specify:) | | | | |
| 4. Can I have your (his/her) height, weight, age, and sex? Height 4/3 Weight 58 Age 8 | 7. Were you (Was he/she) wearing a seat belt just before the accident? [] No (If "No", go to question 8) [] Yes [] Unknown | | | |
| Height $\frac{43}{30}$ Weight $\underline{58}$ Age $\underline{8}$ Sex: [] Female | 7a. Were you (Was he/she) wearing the [] Lap belt? Lap and Shoulder belt? | | | |
| OCCUPANT POSTURE | [] Shoulder belt? | | | |
| 5. Can you tell me how you (he/she) was sitting in the vehicle? | 7b. Can you describe how you were (he/she was) wearing the lap belt? [] Across the stomach Low on lap [] Other (specify:) [] Unknown | | | |
| 5a. Can you describe the location of your (his/her) feet just prior to the collision? Hanging OVER SEAT | 7c. Can you describe how you were (he/she was) wearing the shoulder belt? Over the shoulder [] Under the arm [] Behind the back [] Behind the seat [] Other (specify:) | | | |
| 5b. Can you describe the location of your (his/her) arms? DAYING W/ TOYS | 7d. Did any part of the belt system break or tear? [] No [] Yes (If "Yes", describe) | | | |
| 5c. Was your (his/her) back resting against the seat back rest? [A] No (If "No", describe the position) | OCCUPANT ENTRAPMENT | | | |
| [] Yes [] Unknown | 8. Were you (Was he/she) trapped in the vehicle? LY No [] Yes (If "Yes", describe) | | | |
| | [] Unknown | | | |

National Accident Sampling System-Crashworthiness Data System: Interview Form - Supplement Case Number-Stratum 9416 Vehicle Number 51 Occupant Number 52 PSU Number / O INJURY DATA FROM INTERVIEWEE(S) Indicate the Location, Lesion, Detail, and Source of all injuries. Specify interviewee(s):___ SOFT TISSUE/INTERNAL INJURIES memory 1055 **SKELETAL INJURIES**

The space provided on the back of this page may be used to document injuries noted by the interviewee(s).

| ational Accident Sampling System-Crashworthiness Data System: Interview Form - Supplement Page 3 | | | | |
|---|--|--|--|--|
| 1. Primary Sampling Unit Number | 3. Vehicle Number | | | |
| 2. Case Number - Stratum 9416 | 4. Occupant Number | | | |
| OCCUPANT INJURY | DATA QUESTIONS | | | |
| Were you (Was he/she) injured? No (If "No", skip to question 7) | 5a. Do you know what caused this injury? [] No | | | |
| Yes (If "Yes", complete Occupant Injury Questions) [] Unknown | [] Yes (If "Yes", specify the component(s) on the manikin(s).) [] Unknown | | | |
| 2. Did you (he/she) receive any cuts, abrasions, or bruises? { } No (go to question 3) [X] Yes (If "Yes", record the exact location(s) and size | 6. Did you (he/she) suffer any joint sprains or muscle | | | |
| on the manikin(s).) [] Unknown | strains? No (If "No", go to question 7) | | | |
| 2a. Do you know what caused your (his/her) injury(s)? [] No [X] Yes (if "Yes", specify the component(s) or object(s) | [] Unknown | | | |
| on the manikin(s).) [] Unknown | 6a. Do you know what caused the injury(s)? [] No [] Yes (If "Yes", specify the component(s) on the manikin(s).) | | | |
| 3. Did you (he/she) experience any broken bones? No (if "No", go to question 4) [] Yes (if "Yes", record the exact location(s) and type of fracture(s) on the manikin(s), and then go to question 3a.) [] Unknown | 7. Did you (he/she) receive any treatment? [] No (If "No", go to question 8) [X] Yes (If "Yes", go to question 7a or return to question 2.) | | | |
| 3a. Do you know what caused the injury(s)? [] No [] Yes (If "Yes", specify the component(s) or object(s) on the manikin(s).) [] Unknown | 7a. Were you (Was he/she) treated by (check all that apply): [X] Hospital/trauma center? (specify hospital name): [] Medical clinic [] Out patient surgery? (specify medical | | | |
| 4. Did you (he/she) injure your (his/her) head? (skull/ brain?) ⋈ No (If "No", go to question 5) [] Yes (If "Yes", describe the type of injury(s) on the manikin(s), then go to question 4a.) [] Unknown | [] Out patient surgery? (specify medical facility:) [] Paramedics or first aid at the scene? [] A doctor in his/her office? [] Treated at home? [] None of the above, go to question 8. | | | |
| 4a. Do you know what caused the injury(s)? [] No [] Yes (If "Yes", specify the component(s) on the manikin(s).) [] Unknown | 7b. Were you (Was he/she) treated and released from the emergency room? [] No (If "No", go to question 7c.) [Yes (If "Yes", go to question 7e.) | | | |
| 5. Were any of your (his/her) internal organs injured? [] No (if "No", go to question 6) [] Yes (if "Yes", thoroughly describe the type of injury(s) and specify the internal organ(s) injured on the manikin(s), and then go to question 5a.) [] Unknown | 7c. Were you (Was he/she) hospitalized? [] No (If "No", give an explanation) [] Yes (If "Yes", go to question 7d.) | | | |
| | 7d. How many days were you (was he/she) in the hospital? | | | |

| Primary Sampling Unit Number | 3. Vehicle Number |
|---|--|
| Case Number - Stratum 9416 | 4. Occupant Number <u>O 3</u> |
| | QUESTIONS (CONTINUED) |
| Have you (Has he/she) received any follow-up treatment? [] No [] Yes (If "Yes", describe:) [] Unknown | 8. Have you (he/she) lost any days from work or school (college)? No Yes (If "Yes", determine the number of days lost) (Specify:) |
| In order to achieve the best possible scientific data regarding your (his/her) injury(s), we need to obtain a copy of your (his/her) medical reports. Would you (he/she) sign a medical release form? [] No [X] Yes (If "Yes", mail or present the form for signature.) | |
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| | |
| | WISC |
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Appendix G:

NASS CDS INTERVIEW FORM: VEHICLE #2 DRIVER



U.S. Department of Transportation

National Highway Traffic Safety Administration

INTERVIEW FORM (A) NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINGS DATA SYSTEM

| 1. Primary Sampling Unit Number | Interviewee(s) Role or Name(s): | | |
|--|--|--|--|
| 2. Case Number - Stratum 9 4 1 6 | DRIVER | | |
| 3. Vehicle Number <u>6</u> 2 | | | |
| Review all available information and interview questions prior to conducting interview(s) to ensure the acquisition of all pertinent data. | | | |
| If the driver was not the person interviewed, w | ras an appointment made for a follow-up interview? | | |
| DRIVER'S DESCRI | IPTION OF ACCIDENT EVENTS | | |
| | | | |
| I was E/B on | HE was Bouth stop sign. And continued. Front fender. There's | | |
| I stopped at | stop sign. And continued. | | |
| He hit me Left | front fender. There's | | |
| a shirt shae | from his direction. I | | |
| Think he he we | us going over Umit He | | |
| left 8' skids. | / / | | |
| | | | |
| | | | |
| MAILING ADERS IN | | | |
| | · | | |
| WISC | | | |
| | DR | | |
| | | | |
| | | | |
| | | | |
| OCCUPANT'S DESC | CRIPTION OF ACCIDENT EVENTS | | |
| OMNI TAKEN to | Auto SAlvago | | |
| ASK for | , WISC | | |
| | · | | |
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ACCIDENT DIAGRAM



NORTH

The use of this diagram is optional. It may serve to aid in relating interviewee accident trajectory data (i.e., pre-impact to FRP orientations) to identifiable objects in the environment.



U.S. Department of Transportation

National Highway Traffic Safety

INTERVIEW FORM (B)

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

| Administration | CONTROL DE LA STORE DE LA STOR | |
|--|--|--|
| 1. Primary Sampling Unit Number 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | Interviewee(s) Role or Name(s): DRIVER | |
| | T DATA CLIECTIONS | |
| ACCIDEN | T DATA QUESTIONS | |
| Can you tell me in <u>which direction you were trav</u> | reling? 6a. What actions did you take? | |
| [] North South [] East [] West | [] Braking with lock-up [] Braking without lock-up | |
| (Optional - Where were you coming from or goin | 1 • | |
| In which lane were you traveling? (Note: Lane 1 is designated as the right curb lane) | [] Steering left [] Steering right [] Other (specify): | |
| [1] [2] [3] [4] [] Other (specify): | 7. Where was your vehicle at the time of the collision? | |
| 3. Can you remember your <u>estimated travel speed</u> (in per hour) before the accident? [] Stopped [] 1 0 [] 10-20 [] 20-30 [] 30-40 [] 40-50 [] 50-60 [] 60-70 [] 70+ | [] Original travel lane [] Different travel lane [] In intersection [] Off roadway to right [] Off roadway to left [] Other (specify): 8. Was your travel speed at the time of the collision different from your previous travel speed? | |
| 4. Just before the accident, can you tell me what you intending to do or were doing? Going straight Stopped Accelerating Turning left Turning right Changing lanes to left Changing lanes to left Changing lanes to left Other (specify): | [] Higher [] Unknown 8a. Can you estimate your speed at the time of the collision? | |
| 5. Did you experience any loss of control due to w conditions or mechanical problems? [X] No [] Yes (If yes, describe below) | 9. Immediately following the collision, can you describe how your vehicle moved to its stopped position? EAST Sowth EAST. | |
| 6. Did you have to take any <u>avoidance actions prior accident?</u> [X] No - Go to question 7 [] Yes - Go to question 6a | 10. Can you tell me how many collisions your vehicle had during the accident and the source of the collisions? MIGHT HAVE HAD SIDE SIAP. RANCE Fender | |

| Istional Accident Sampling System-Crashworthiness Data System: Interview Form (B) Page 2 | | | | |
|---|--|--|--|--|
| 3. Vehicle Number | | | | |
| 4. Occupant Number | | | | |
| DATA QUESTIONS | | | | |
| 7b. Were any of the belts removed or not functional prior to the accident? [] No [] Yes (If "Yes", specify which belt and describe problem) 8. Do any of the front belts move along a motorized track when the door is opened or closed? [] No (If "No", go to question 9) [] Yes (If "Yes", what seat location?) [] Left Front [] Right Front 8a. Were the motorized belts working properly before the accident? | | | | |
| [] No (If "No", describe condition below) [] Yes 8b. Were the belts connected to the track prior to the accident? [] No [] Yes [] Unknown | | | | |
| 9. Do any of the front "seat" belts attach to the door such that when the door is opened the belt travels with the door? No (go to question 10) | | | | |
| 9a. Does this belt come across the? [] Chest only [] Lap and chest 9b. Was this belt connected prior to the accident? | | | | |
| [] No [] Yes [] Unknown | | | | |
| AIR BAGS 10. Is your vehicle equipped with a driver's side air bag? No (go to question 11) Yes (go to question 10a) Unknown (go to question 11) 10a. Did the air bag inflate during the accident? No (go to questions 10b and 10c) Yes (go to question 10e) | | | | |
| | | | | |

[] Yes

| National Accident Sampling System-Crashworthiness Da | ta System: Interview Form (B) Page 4 |
|--|---|
| 1. Primary Sampling Unit Number | 3. Vehicle Number |
| 2. Case Number - Stratum 9416 | 4. Occupant Number |
| VEHICLE/DRIVER DATA | QUESTIONS (CONTINUED) OPTIONAL |
| 12h. Were any of these items added after you owned the child safety seat? [] Yes | |
| 12i. Were any of these items used during the accident? [] Yes (If "Yes", check all that apply) | 16. May I take a look at your vehicle to assess the damage? [] No [] Yes |
| | DRIVER ONLY |
| CARGO WEIGHT AND MILEAGE 13. Was there any cargo in your vehicle? [※] No (If "No", go to question 14) [] Yes (If "Yes", go to question 13a) [] Unknown 13a. Can you estimate the weight of the cargo? | 17. What race do you consider yourself? White Black American Indian, Eskimo or Aleut, Asian or Pacific Islander Other (specify: Unknown. |
| Cargo description | 18. Are you of hispanic origin? [X] No [] Yes |
| 14. Can you tell me the mileage on the vehicle? M N | |
| | |
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| 1. Primary Sampling Unit Number / O 3. Ve | hicle Number <u>O</u> Ø | | | |
|---|--|--|--|--|
| | cupent Number <u>6</u> / | | | |
| VEHICLE ROLLOVE | R/FIRE QUESTIONS | | | |
| ROLLOVER QUESTIONS | FIRE QUESTIONS | | | |
| 1. Did the vehicle rollover during the accident? [No (If "No", go to question 2.) [] Yes [] Unknown (skip to question 2) | 2. Did the vehice experience a fire? No (If "No", skip to Occupant Data Questions) Yes Unknown | | | |
| 1a. Describe where the rollover began. [] On roadway [] On shoulder [] On roadside or median [] Unknown 1b. What caused the vehicle to rollover? [] Other vehicle (specify vehicle number): [] Contacted object (specify): [] Other cause (specify): [] Unknown 1c. Describe which direction the vehicle rolled. [] Toward the right [] Toward the left [] End-over-end [] Unknown | 2a. Describe where the fire started or where smoke was firs seen. [] Under the hood [] Behind the instrument panel [] In the passenger compartment [] In the trunk/cargo area [] Under the vehicle [] From other involved vehicle [] Unknown 2b. Did the fire start with the electrical system? [] No [] Yes (specify): [] Unknown 2c. Did the fire start with the fuel system? [] No (If "No", skip to Occupant Data Questions) [] Yes (go to question 2d) [] Unknown | | | |
| 1d. Estimate the number of sides (including the top and bottom) which contacted the ground during the rollover? [] 1 side [] 2 sides [] 3 sides [] 4 sides [] Unknown 1e. Did the vehicle roll over more than one complete turn | 2d. Describe which part of the fuel system that may have been involved? [] No [] Yes (specify): | | | |
| (more than 4 sides)? [] No (If "No", go to question 1g.) [] Yes | (Go To Occupant Data Questions) | | | |
| 1f. Estimate the number of complete turns. [] No [] Yes (specify): | COMMENTS ON ROLLOVERS AND FIRES | | | |
| 1g. When the verticle stopped rolling over, which side of the vehicle was in contact with the ground? [] Left side [] Right side [] Top [] Wheels [] Unknown | | | | |

| lational Accident Sampling System-Crashworthiness Data System: Interview Form (B) Page 6 | | | | | | | |
|--|---|--|--|--|--|--|--|
| 1. Primary Sampling Unit Number / D | 3. Vehicle Number | | | | | | |
| 2. Case Number - Stratum. 9416 | 4. Occupant Number | | | | | | |
| OCCUPANT DATA QUESTIONS | | | | | | | |
| 1. Was there anyone else in your vehicle at the time of the accident? [] No (If "No", go to question 4) [Yes (If "Yes", specify number in question 2 below and then go to question 3) [] Unknown | 5d. Were you (Was he/she) [] Sitting upright or [] Leaning to left side, or [] Leaning to right side? OCCUPANT EJECTION | | | | | | |
| 2. How many? [1] One other person [2] Two other persons [3] Three other persons [4] Four other persons [5] Five other persons [6] Six other persons [7] Seven or more other persons (specify number:) | 6. Were you (Was he/she) or any part of your (his/her) body thrown from the vehicle during the accident? No (If "No", go to question 7) Yes (If "Yes", go to question 6a) Unknown 6a. Can you remember out of what area of the vehicle you were (he/she was) thrown? No Yes (Describe:) | | | | | | |
| 3. Where was this person sitting? (Circle seating positions) [12] [13] [21] [22] [23] [31] [32] [33] [] Other (specify:) OCCUPANT CHARACTERISTICS | OCCUPANT RESTRAINT 7. Were you (Was he/she) wearing a seat belt just before the accident? [] No (If "No", go to question 8) Yes [] Unknown | | | | | | |
| 4. Can I have your (his/her) height, weight, age, and sex? Height 5 Weight 1/0 Age 18 Sex: [] Male K Fernale | 7a. Were you (Was he/she) wearing the [] Lap belt? [] Lap and Shoulder belt? [] Shoulder belt? 7b. Can you describe how you were (he/she was) wearing | | | | | | |
| 5. Can you tell me how you (he/she was) were sitting in your vehicle? Plant. | the lap belt? [] Across the stomach [] Low on lap [] Other (specify:) [Unknown | | | | | | |
| 5a. Can you describe the location of your (his/her) feet just prior to the collision? — ONE ON GAS OTHER | 7c. Can you describe how you were (he/she was) wearing the shoulder belt? [] Over the shoulder [] Under the arm [] Behind the back [] Behind the seat [] Other (specify:) | | | | | | |
| 5b. Can you describe the location of your (his/her) arms? Both hands on Seeving wheel | 7d. Did any part of the belt system break or tear? [] No [] Yes (If "Yes", describe) | | | | | | |
| 5c. Was your (his/her) back resting against the seat back rest? [] No (If "No", describe the position) Yes [] Unknown | 8. Were you (Was he/she) trapped in the vehicle? No | | | | | | |

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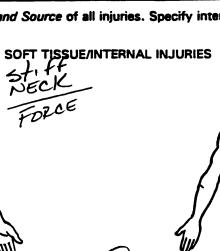
National Accident Sampling System-Crashworthiness Data System: Interview Form (B)

PSU Number 1 0

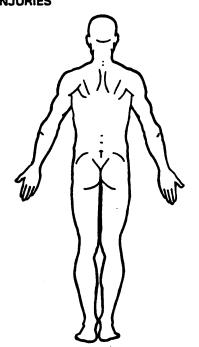
Case Number-Stratum 9416 Vehicle Number 02 Occupant Number 01

INJURY DATA FROM INTERVIEWEE(S)

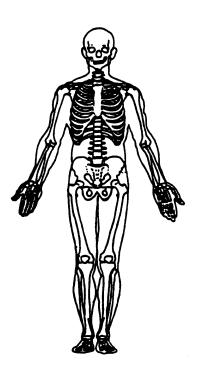
Indicate the Location, Lesion, Detail, and Source of all injuries. Specify interviewee(s):

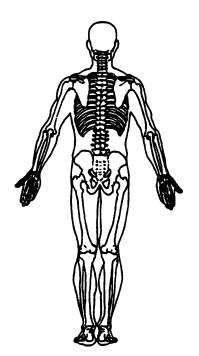


JASHBOARD.



SKELETAL INJURIES





The space provided on the back of this page may be used to document injuries noted by the interviewee(s).

| ational Accident Sampling System-Crashworthiness Data System: Interview Form (B) Page 8 | | | | | | |
|---|---|--|--|--|--|--|
| 1. Primary Sampling Unit Number / O | 3. Vehicle Number | | | | | |
| 2. Case Number - Stratum 9416 | 4. Occupant Number | | | | | |
| OCCUPANT INJURY | DATA QUESTIONS | | | | | |
| 1. Were you (Was he/she) injured? [] No (If "No", skip to question 7) [] Yes (If "Yes", complete Occupant Injury Questions) [] Unknown 2. Did you (he/she) receive any cuts, abrasions, or bruises? | 5a. Do you know what caused this injury? [] No [] Yes (If "Yes", specify the component(s) on the manikin(s).) [] Unknown | | | | | |
| [] No (go to question 3) [⋈] Yes (If "Yes", record the exact location(s) and size on the manikin(s).) [] Unknown | 6. Did you (he/she) suffer any joint sprains or muscle strains? [] No (If "No", go to question 7) [X] Yes (If "Yes", specify on the manikin(s), and then go to question 6a.) | | | | | |
| 2a. Do you know what caused your (his/her) injury(s)? [] No [X] Yes (If "Yes", specify the component(s) or object(s) on the manikin(s).) [] Unknown | [] Unknown 6a. Do you know what caused the injury(s)? [] No | | | | | |
| 3. Did you (he/she) experience any broken bones? [☒ No (If "No", go to question 4) [] Yes (If "Yes", record the exact location(s) and type of fracture(s) on the manikin(s), and then go to question 3a.) [] Unknown | [] Unknown 7. Did you (he/she) receive any treatment? [] No (If "No", go to question 8) ☑ Yes (If "Yes", go to question 7a or return to question 2.) | | | | | |
| 3a. Do you know what caused the injury(s)? [] No [] Yes (If "Yes", specify the component(s) or object(s) on the manikin(s).) [] Unknown | 7a. Were you (Was he/she) treated by (check all that apply): [] Hospital/trauma center? (specify hospital name): | | | | | |
| 4. Did you (he/she) injure your (his/her) head? (skull/brain?) No (If "No", go to question 5) Yes (If "Yes", describe the type of injury(s) on the manikin(s), then go to question 4a.) Unknown | Medical clinic [] Out patient surgery? (specify medical facility:) [] Paramedics or first aid at the scene? [] A doctor in his/her office? [] Treated at home? [] None of the above, go to question 8. | | | | | |
| 4a. Do you know what caused the injury(s)? [] No [] Yes (If "Yes", specify the component(s) on the manikin(s).) [] Unknown | 7b. Were you (Was he/she) treated and released from the emergency room? [] No (If "No", go to question 7c.) [X] Yes (If "Yes", go to question 7e.) | | | | | |
| 5. Were any of your (his/her) internal organs injured? [X] No (If "No", go to question 6) [] Yes (If "Yes", thoroughly describe the type of injury(s) and specify the internal organ(s) injured on the manikin(s), and then go to question 5a.) [] Unknown | 7c. 'Were you (Was he/she) hospitalized? [] No (If "No", give an explanation) [] Yes (If "Yes", go to question 7d.) 7d. How many days were you (was he/she) in the hospital? days | | | | | |

| Primary Sampling Unit Number/ | 3. Vehicle Number |
|--|--|
| Case Number - Stratum 9416 | 4. Occupant Number |
| OCCUPANT INJURY DATA | OLIESTIONS (CONTINUED) |
| , | |
| . Have you (Has he/she) received any follow-up treatment? | Have you (he/she) lost any days from work or scho (college)? |
| [≱] No [] Yes (If "Yes", describe:) | [] No ⋉] Yes (If "Yes", determine the number of days los |
| | (Specify:) |
| [] Unknown | [] Unknown |
| | |
| f. In order to achieve the best possible scientific data regarding your (his/her) injury(s), we need to obtain a | alma |
| copy of your (his/her) medical reports. Would you (he/she) sign a medical release form? | Clinic |
| [] No [X] Yes (If "Yes", mail or present the form for | WISC |
| signature.) | |
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| National Accident Sampling System-Crashworthiness Date 1. Primary Sampling Unit Number/ | ts System: Interview Form - Supplement chicle Number |
|--|---|
| 0.1/1 | |
| | ccupant Number |
| OCCUPANT DATA GO | ESTIONS SUPPLEMENT |
| 1. Who was the next occupant in your vehicle at the time of the accident? MY Little WEIGHBOR | 5d. Were you (Was he/she) [A] Sitting upright or [] Leaning to left side, or [] Leaning to right side? |
| <i>'</i> | OCCUPANT EJECTION |
| 2. Occupant Number 2 of 2. | 6. Were you (Was he/she) or any part of your (his/her) body thrown from the vehicle during the accident? [○] No (If "No", go to question 7) [] Yes (If "Yes", go to question 6a) [] Unknown |
| 3. Where were you (was this person) sitting? (Circle seating positions) [12] [13] [21] [22] | 6a. Can you remember out of what area of the vehicle you were (he/she was) thrown? [] No [] Yes (Describe:) |
| [31] [32] [33] [] Other (specify:) | OCCUPANT RESTRAINT |
| OCCUPANT CHARACTERISTICS 4. Can I have your (his/her) height, weight, age, and sex? | 7. Were you (Was he/she) wearing a seat belt just before the accident? [] No (If "No", go to question 8) [☑ Yes [] Unknown |
| Height 49 Weight 90 Age 12 Sex: [X] Male [] Fernale | 7a. Were you (Was he/she) wearing the [] Lap belt? Lap and Shoulder belt? [] Shoulder belt? |
| OCCUPANT POSTURE | • |
| 5. Can you tell me how you (he/she) was sitting in the vehicle? Upryht | 7b. Can you describe how you were (he/she was) wearing the lap belt? [] Across the stomach [] Low on lap [] Other (specify:) [] Unknown |
| 5a. Can you describe the location of your (his/her) feet just prior to the collision? Both feet or Floor | 7c. Can you describe how you were (he/she was) wearing the shoulder belt? ├── Over the shoulder [] Under the arm [] Behind the back [] Behind the seat [] Other (specify:) |
| 5b. Can you describe the location of your (his/her) arms? CRADLING R hand IN LAP | 7d. Did any part of the belt system break or tear? [] No [] Yes (If "Yes", describe) |
| 5c. Was your (his/her) back resting against the seat back rest? [] No (If "No", describe the position) | OCCUPANT ENTRAPMENT |
| Yes [] Unknown | 8. Were you (Was he/she) trapped in the vehicle? [] No [] Yes (If "Yes", describe) |
| | [] Unknown |

National Accident Sampling System-Crashworthiness Data System: Interview Form - Supplement

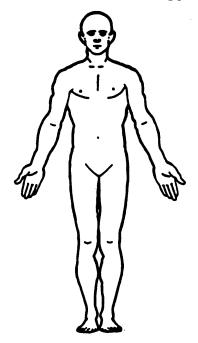
PSU Number / D

Case Number—Stratum 9416 Vehicle Number 02

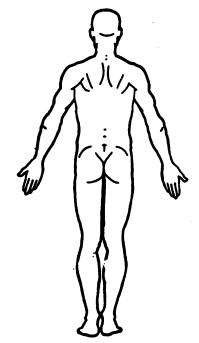
INJURY DATA FROM INTERVIEWEE(S)

Indicate the Location, Lesion, Detail, and Source of all injuries. Specify Interviewee(s): 7021VER

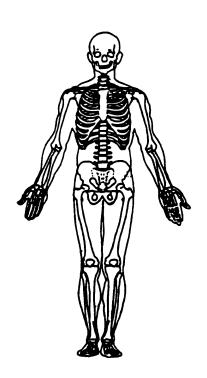
SOFT TISSUE/INTERNAL INJURIES

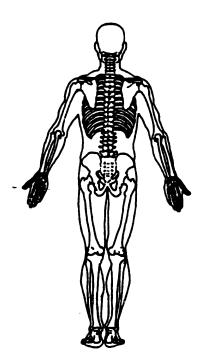


NONE



SKELETAL INJURIES





The space provided on the back of this page may be used to document injuries noted by the interviewee(s).

| lational Accident Sampling System-Crashworthiness Date | System: Interview Form - Supplement Page 3 |
|--|---|
| 1. Primary Sampling Unit Number | 3. Vehicle Number |
| 2. Case Number - Stratum 9416 | 4. Occupant Number |
| OCCUPANT INJURY | DATA QUESTIONS |
| Were you (Was he/she) injured? No (If "No", skip to question 7) [] Yes (If "Yes", complete Occupant Injury Questions) [] Unknown Did you (he/she) receive any cuts, abrasions, or bruises? [] No (go to question 3) [] Yes (If "Yes", record the exact location(s) and size | 5a. Do you know what caused this injury? [] No [] Yes (If "Yes", specify the component(s) on the manikin(s).) [] Unknown 6. Did you (he/she) suffer any joint sprains or muscle |
| on the manikin(s).) [] Unknown | strains? [] No (If "No", go to question 7) [] Yes (If "Yes", specify on the manikin(s), and then go to question 6a.) |
| 2a. Do you know what caused your (his/her) injury(s)? [] No [] Yes (If "Yes", specify the component(s) or object(s) on the manikin(s).) [] Unknown | 6a. Do you know what caused the injury(s)? [] No [] Yes (If "Yes", specify the component(s) on the manikin(s).) |
| 3. Did you (he/she) experience any broken bones? [] No (if "No", go to question 4) [] Yes (if "Yes", record the exact location(s) and type of fracture(s) on the manikin(s), and then go to question 3a.) [] Unknown | 7. Did you (he/she) receive any treatment? [No (if "No", go to question 8) [] Yes (if "Yes", go to question 7a or return to question 2.) |
| 3a. Do you know what caused the injury(s)? [] No [] Yes (If "Yes", specify the component(s) or object(s) on the manikin(s).) | 7a. Were you (Was he/she) treated by (check all that apply): [] Hospital/trauma center? (specify hospital name): |
| [] Unknown 4. Did you (he/she) injure your (his/her) head? (skull/ brain?) [] No (If "No", go to question 5) [] Yes (If "Yes", describe the type of injury(s) on the manikin(s), then go to question 4a.) [] Unknown | [] Medical clinic [] Out patient surgery? (specify medical facility:) [] Paramedics or first aid at the scene? [] A doctor in his/her office? [] Treated at home? [] None of the above, go to question 8. |
| 4a. Do you know what caused the injury(s)? [] No [] Yes (If "Yes", specify the component(s) on the manikin(s).) [] Unknown | 7b. Were you (Was he/she) treated and released from the emergency room? [] No (If "No", go to question 7c.) [] Yes (If "Yes", go to question 7e.) |
| 5. Were any of your (his/her) internal organs injured? [] No (If "No", go to question 6) [] Yes (If "Yes", thoroughly describe the type of injury(s) and specify the internal organ(s) injured on the manikin(s), and then go to question 5a.) [] Unknown | 7c. Were you (Was he/she) hospitalized? [] No (If "No", give an explanation) [] Yes (If "Yes", go to question 7d.) 7d. How many days were you (was he/she) in the hospital? |

| rimary Sampling Unit Number | 3. Vehicle Number | | |
|--|---|--|--|
| Case Number - Stratum 9416 | 4. Occupant Number | | |
| OCCUPANT INJURY DATA | QUESTIONS (CONTINUED) | | |
| Have you (Has he/she) received any follow-up treatment? [] No [] Yes (If "Yes", describe:) [] Unknown | 8. Have you (he/she) lost any days from work or school (college)? No Yes (If "Yes", determine the number of days lost (Specify:) Not working prior to the accident Unknown | | |
| In order to achieve the best possible scientific data regarding your (his/her) injury(s), we need to obtain a copy of your (his/her) medical reports. Would you (he/she) sign a medical release form? [] No [] Yes (If "Yes", mail or present the form for signature.) | | | |
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Appendix H:

NASS CDS OCCUPANT ASSESSMENT FORM:

CASE VEHICLE DRIVER



U.S. Department of Transportation National Highway Traffic Safety Administration

OCCUPANT ASSESSMENT FORM

Form Approved O.M.B. No. 2127-0021

NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM

| 17 | OCCUPANT'S SEATING |
|--|--|
| 1. Primary Sampling Unit Number | 10. Occupant's Seat Position |
| 2. Case Number - Stratum 9416 | Front Seat |
| 3. Vehicle Number | (11) Left side (12) Middle |
| 4. Occupant Number | (13) Right side |
| OCCUPANT'S CHARACTERISTICS | (14) Other (specify):(15) On or in the lap of another occupant |
| | (15) On or in the lap of another occupant |
| 5. Occupant's Age Code actual age at time of accident. (00) Less than one year old (specify by month): (97) 97 years and older (99) Unknown | Second Seat (21) Left side (22) Middle (23) Right side (24) Other (specify): (25) On or in the lap of another occupant |
| 6. Occupant's Sex (1) Male (2) Female (9) Unknown | Third Seat (31) Left side (32) Middle (33) Right side (34) Other (specify): (35) On or in the lap of another occupant |
| 7. Occupant's Height Code actual height to the nearest centimeter. (999) Unknown 72 1 8 inches X 2.54 = 172 centimeters | Fourth Seat (41) Left side (42) Middle (43) Right side (44) Other (specify): (45) On or in the lap of another occupant (97) In or on unenclosed area (98) Other seat (specify): (99) Unknown |
| 8. Occupant's Weight Code actual weight to the nearest kilogram. (999)Unknown 57 100 pounds x .4536 = 070 kilograms 9. Occupant's Role (1) Driver (2) Passenger | 11. Occupant's Posture (0) Normal posture Abnormal posture (1) Kneeling or standing on seat (2) Lying on or across seat (3) Kneeling, standing or sitting in front of seat (4) Sitting sideways or turned to talk with another occupant or to look out a rear window (5) Sitting on a console (6) Lying back in a reclined seat position (7) Bracing with feet or hands on a surface in front |
| (9) Unknown | of seat (8) Other abnormal posture (specify): (9) Unknown |

| | EJEC | CTION/EI | NTRAPMENT |
|-----|---|----------|--|
| 12. | Ejection (0) No ejection (1) Complete ejection (2) Partial ejection (3) Ejection, unknown degree (9) Unknown | 0 | 15. Medium Status (Immediately Prior To Impact) O (0) No ejection (1) Open (2) Closed (3) Integral structure (9) Unknown |
| 13. | Ejection Area (0) No ejection (1) Windshield (2) Left front (3) Right front (4) Left rear (5) Right rear (6) Rear (7) Roof (8) Other area (e.g., back of pickup, etc.) (specify): (9) Unknown | <u> </u> | 16. Entrapment (NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.) (0) Not entrapped (1) Entrapped (9) Unknown |
| 14. | Ejection Medium (0) No ejection (1) Door/hatch/tailgate (2) Nonfixed roof structure (3) Fixed glazing (4) Nonfixed glazing (specify): (5) Integral structure (8) Other medium (specify): (9) Unknown | <u>Ø</u> | · |
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| RESTRAINT SYSTEM EVALUATION | | | | | | |
|--|--|--|--|--|--|--|
| 17. Manual (Active) Belt System Availability (0) None available (1) Belt removed/destroyed (2) Shoulder belt (3) Lap belt (4) Lap and shoulder belt (5) Belt available—type unknown Integral Belt Partially Destroyed (6) Shoulder belt (lap belt destroyed/removed) | 21. Air Bag System Availability/Function (0) Not equipped/not available (1) Air bag Non-functional (2) Air bag disconnected (specify): (3) Air bag not reinstalled (9) Unknown | | | | | |
| (7) Lap belt (shoulder belt destroyed/removed) (8) Other belt (specify): (9) Unknown 18. Manual (Active) Belt System Use (00) None used, not available, or belt removed/destroyed (01) Inoperative (specify): (02) Shoulder belt (03) Lap belt (04) Lap and shoulder belt (05) Belt used—type unknown (08) Other belt used (specify): | 22. Air Bag System Deployment (0) Not equipped/not available (1) Air bag deployed during accident (as a result of impact) (2) Air bag deployed inadvertently just prior to accident (3) Air bag deployed, accident sequence undetermined (4) Nondeployed (5) Unknown if deployed (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical) (9) Unknown | | | | | |
| (12) Shoulder belt used with child safety seat (13) Lap belt used with child safety seat (14) Lap and shoulder belt used with child safety seat (15) Belt used with child safety seat—type unknown (18) Other belt used with child safety seat (specify): (99) Unknown if belt used 19. Proper Use of Manual (Active) Belts (0) None used or not available (1) Belt used properly (2) Belt used properly with child safety seat | 23. Are There Indications of Air Bag System Failure? (0) Not equipped/not available (1) No (2) Yes (specify): (9) Unknown Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts | | | | | |
| Belt Used Improperty (3) Shoulder belt worn under arm (4) Shoulder belt worn behind back or seat (5) Belt worn around more than one person (6) Lap belt worn on abdomen (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): (8) Other improper use of manual belt system (specify): | 24. Police Reported Restraint Use (0) None used (1) Police did not indicate restraint use (2) Shoulder belt (3) Lap belt (4) Lap and shoulder belt (5) Belt used, type not specified (6) Child safety seat (7) Other or automatic restraint (specify); LAPS Shoulder + AIR BAG (8) Restrained, type unknown (9) Police indicated "unknown" | | | | | |
| 20. Manual (Active) Belt Failure Modes During Accident (0) No manual belt used (1) No manual belt failure(s) (2) Torn webbing (stretched webbing not included) (3) Broken buckle or latchplate (4) Upper anchorage separated (5) Other anchorage separated (specify): (6) Broken retractor (7) Combination of above (specify): (8) Other manual belt failure (specify): | | | | | | |

| | HEAD | RESTRAINT AN | D SEAT | EVALUATION | | |
|-----|--|---|-----------------------------|---|--|-----------|
| | Head Restraint Type/Damage by Cat This Occupant Position (0) No head restraints (1) Integral—no damage (2) Integral—damaged during acc (3) Adjustable—no damage (4) Adjustable—damaged during (5) Add-on—no damage (6) Add-on—damaged during acc (8) Other (specify): | cident accident | (0) (1) (2) (3) (4) (5) (6) | Seat Performance (this Occupant Positio 0) Occupant not seated or no seat 1) No seat performance failure(s) 2) Seat adjusters failed 3) Seat back folding locks or "seat back (specify): 4) Seat track/anchors failed 5) Deformed by impact of occupant 6) Deformed by passenger compartment (specify): 7) Combination of above (specify): | | c" failed |
| 26. | Seat Type (this Occupant Position (00) Occupant not seated or no s (01) Bucket (02) Bucket with folding back (03) Bench (04) Bench with separate back c (05) Bench with folding back(s) (06) Split bench with separate back (07) Split bench with folding back (08) Pedestal (i.e., column support (09) Other seat type (specify): | ushions ack cushions k(s) orted) | | Other (specify): Unknown | | |
| | (99) Unknown | | | | | • |
| | | | | | | |
| | | | | | | |
| - | • | | : | | | |
| | | | | , i | | ı |
| | | | | | | |

| | CHILD SA | ETY SEAT |
|-----|--|--|
| 28. | Child Safety Seat Make/Model (000) No child safety seat Applicable codes are found in your NASS CDS Data Collection, Coding and Editing (950) Built-in child safety seat (997) Other make/model (specify): (998) Unknown make/model (999) Unknown if child safety seat used | 31. Child Safety Seat Harness Usage 32. Child Safety Seat Shield Usage 33. Child Safety Seat Tether Usage Note: Options below applicable to |
| 29. | Type of Child Safety Seat | Variables OA31-OA33. (00) No child safety seat Not Designed With Harness/Shield/Tether |
| | (0) No child safety seat (1) Infant seat (2) Toddler seat (3) Convertible seat (4) Booster seat (7) Other type child safety seat (specify): (8) Unknown child safety seat type (9) Unknown if child safety seat used | (01) After market harness/shield/tether added, not used (02) After market harness/shield/tether used (03) Child safety seat used, but no after market harness/shield/tether added (09) Unknown if harness/shield/tether added or used Designed With Harness/Shield/Tether (11) Harness/shield/tether not used |
| 30. | Child Safety Seat Orientation (00) No child safety seat Designed for Rear Facing for This Age/Weight (01) Rear facing (02) Forward facing (08) Other orientation (specify): (09) Unknown orientation Designed For Forward Facing for This Age/Weight (11) Rear facing (12) Forward facing (18) Other orientation (specify): (19) Unknown orientation Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight (21) Rear facing (22) Forward facing (28) Other orientation (specify): (29) Unknown orientation (99) Unknown if child safety seat used | (12) Harness/shield/tether used (19) Unknown if harness/shield/tether used Unknown if Designed With Harness/Shield/Tether (21) Harness/shield/tether not used (22) Harness/shield/tether used (29) Unknown if harness/shield/tether used (99) Unknown if child safety seat used |
| | | |

| | INJURY CONSEQUENCES | 28 Wating David and |
|-----|--|---|
| | 1' | 38. Working Days Lost Code the number of days |
| 34. | Injury Severity (Police Rating) | (up through 60) that the occupant |
| } | | lost from work due to the accident |
| | (0) O - No injury | (00) No working days lost |
| l | (1) C - Possible injury | (61) 61 days or more |
| | (2) B - Nonincapacitating injury | (62) Fatally injured |
| 1 | (3) A - Incapacitating injury (4) K - Killed | (97) Not working prior to accident |
| | (5) U - Injury, severity unknown | (99) Unknown |
| | (6) Died prior to accident | |
| | (9) Unknown | STOP - GO TO VARIABLE 44 ON PAGE 7 |
| | | SIS. GO IS TABABLE TO STARSE ! |
| | • | VARIABLES 39 THROUGH 43 ARE |
| 35. | Treatment - Mortality | COMPLETED BY THE ZONE CENTER |
| | (0) No treatment | |
| | (1) Fatal | |
| | (2) Fatal - ruled disease (specify): | 39. Time to Death |
| | | Code number of hours from time of |
| | Nonfatal | accident to time of death up through 24 |
| | (3) Hospitalization | hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = |
| | (4) Transported and released | 31, 2 days = 32, n days = 30 +n up |
| | (5) Treatment at scene - nontransported | through 30 days = 60) |
| | (6) Treatment later | (00) Not fatal |
| | (8) Treatment - other (specify): | (96) Fatal - ruled disease |
| | • | (99) Unknown |
| | (9) Unknown | |
| | | |
| 36 | Type Of Medical Facility (for Initial Treatment) | 40. 1st Medically Reported Cause of Death |
| 30. | (0) Not treated at a medical facility | 41. 2nd Madically, Reserved Course of Basel. |
| | (1) Trauma center | 41. 2nd Medically Reported Cause of Death |
| | (2) Hospital | 42. 3rd Medically Reported Cause of Death |
| | (3) Medical clinic | Code the Occupant Injury from line |
| | (4) Physician's office | number(s) for the medically reported |
| | (5) Treatment later at medical facility | injury(s) which reportedly contributed to |
| | (8) Other (specify): | this occupant's death |
| | (0) 11-1 | (00) Not fatal or no additional causes |
| | (9) Unknown | (96) Mode of death given but specific |
| | | injuries are not linked to cause |
| 37. | Hospital Stay | of death. (specify): |
| | (00) Not Hospitalized | (97) Other result (includes fatal ruled |
| | Code the number of days (up through 60) | disease) (specify): |
| | that the occupant stayed in hospital. | disease/ (specify). |
| - | (61) 61 days or more | (99) Unknown |
| | (99) Unknown | ,, |
| | | |
| | | 43. Number of Recorded Injuries for |
| | | This Occupant O |
| | | Code the actual number of |
| | | injuries recorded for this occupant. |
| | | (00) No recorded injuries |
| | | (97) Injured, details unknown (99) Unknown if injured |
| | | (55) Olikilowii ii iiijuleu |
| | | |
| | | • |
| | | |

| | AUTOMATIC BELT SYSTEM | | 40 | Augustia (Bassius) Bala Failura Madas |
|-------------|--|----------|-----|---|
| 44. | Automatic (Passive) Belt System Availability/ Function (0) Not equipped/not available (1) 2 point automatic belts (2) 3 point automatic belts (3) Automatic belts - type unknown Non-functional (4) Automatic belts destroyed or rendered inoperative (9) Unknown | O * | 40. | Automatic (Passive) Belt Failure Modes During Accident (0) Not equipped/not available/not in use (1) No automatic belt failure(s) (2) Torn webbing (stretched webbing not included) (3) Broken buckle or latchplate (4) Upper anchorage separated (5) Other anchorage separated (specify): (6) Broken retractor (7) Combination of above (specify): (8) Other automatic belt failure (specify): |
| 4 5. | Automatic (Passive) Belt System Use (0) Not equipped/not available/destroyed or rendered inoperative (1) Automatic belt in use (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify): (3) Automatic belt use unknown (9) Unknown | <u>o</u> | 49. | Seat Orientation (this Occupant Position) (0) Occupant not seated or no seat (1) Forward facing seat (2) Rear facing seat (3) Side facing seat (inward) (4) Side facing seat (outward) (8) Other (specify): |
| 46. | Automatic (Passive) Belt System Type (0) Not equipped/not available (1) Non-motorized system (2) Motorized system (9) Unknown | <u>D</u> | | Check the Primary Source Used In Determining Belt Use. |
| 47. | Proper Use of Automatic (Passive) Belt System (0) Not equipped/not available/not used (1) Automatic belt used properly (2) Automatic belt used properly with child safety seat Automatic Belt Used Improperly (3) Automatic shoulder belt worn under arm (4) Automatic shoulder belt worn behind back (5) Automatic belt worn around more than one person (6) Lap portion of automatic belt worn on abdomen (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): (8) Other improper use of automatic belt system (specify): (9) Unknown | <u></u> | | [] Not equipped/not available/destroyed or rendered inoperative [v] Vehicle inspection [] Official injury data [] Driver/occupant interview [] Other (specify): [] Unknown if belt used |
| | ARE ALL APPLICABLE MEDICAL REWITH INITIAL SUBMISSION? | COF | RDS | INCLUDED NO[] YES[V] |
| | UPDATE CANDIDA | TE? | | NO [Y YES [] |

| TO THE PARTY OF TH | BELT USE DETERMINATION |
|--|---|
| STOP - VARIABLES 50 THROUGH 53 ARE COMPLETED BY THE ZONE CENTER | 53. Primary Source of Belt Use Determination (0) Not equipped/not available/destroyed or rendered inoperative |
| TRAUMA DATA | (1) Vehicle inspection (2) Official injury data |
| 50. Glasgow Coma Scale (GCS) Score (at Medical Facility) (00) Not injured (01) Injured - not treated at medical facility (02) No GCS Score at medical facility (03-15) Code the actual value of the initial GCS Score recorded at medical facility. (97) Injured, details unknown (99) Unknown if injured | (3) Driver/occupant interview (8) Other (specify): (9) Unknown if belt used |
| 51. Was the Occupant Given Blood? (1) No - blood not given (2) Yes - blood given (specify units): (9) Unknown if blood given | |
| 52. Arterial Blood Gases (ABG) – HCO ₃ (00) Not injured (01) Injured, ABGs not measured or reported (02-50) Code the actual value of theHCO ₃ (96) ABGs reported, HCO ₃ unknown (97) Injured, details unknown (99) Unknown if injured | |
| | |
| | <u>-</u> |
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Appendix I:

NASS CDS OCCUPANT INJURY FORM:

CASE VEHICLE DRIVER

Administration

U.S. Department of Transportation National Highway Traffic Safety

OCCUPANT INJURY FORM

Form Approved
O.M.B. No. 2127-0021

NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM

| 1. Primary Sampling Unit Number | 10 | 3. Vehicle Number |
|---------------------------------|------|--------------------|
| 2. Case Number - Stratum | 9416 | 4. Occupant Number |

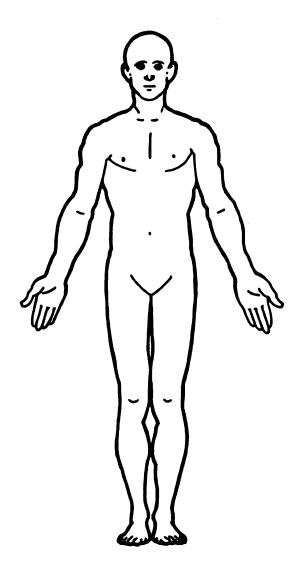
INJURY DATA

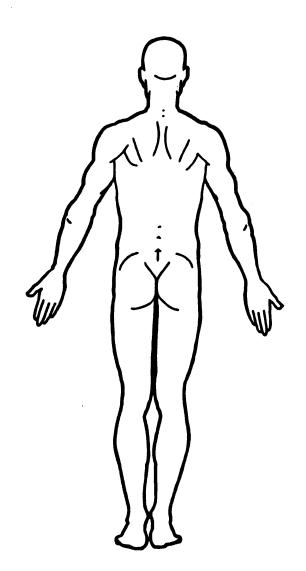
Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

| | | | | A.I.S | 90 | | | | Injury | | Occupan |
|------|-----------------------------|----------------|----------------------------------|-----------------------------------|--------------------|--------------------|--------------|------------------|-------------------------------|-------------------------------|-----------------------------|
| | Source of Injury Data | Body Region | Type of Anatomic Structure | Specific Anatomic Structure | Level of Injury | A.I.S. Severity | Aspect | Injury Source | Source Confidence Level | Direct/ Indirect Injury | Area Intrusion Number |
| 1st | 5. <u>7</u> | 6. <u>7</u> | 7. <u>9</u> | s. <u>0 2</u> | 9. <u>0</u> 2 | 10/ | 11. <u>3</u> | 12. <u>45</u> | 13. / | 14 | 15. <u>0 0</u> |
| 2nd | 16 | 17 | 18 19 | e | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 3rd | 27 | 28 | 29 36 | o | 31 | 32 , | 33 | 34 | 35 | 36 | 37 |
| 4th | 38 | 39 | 40 4 | 1 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |
| 5th | 49 | 50 | 51 5 | 2 | 53 | 54 | 5 5 | 56 | 57. <u> </u> | 58 | 59. <u> </u> |
| 6th | 60 | 61 | 62 6 | 3 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 7th | 71 | 72 | 73 7 | 4 | 75 | 76 | 77 | 78 | 79 | 80 | 81 |
| 8th | 82 | 83 | 84 8 | 5 | 86 | 87 | 88 | 89 | 90 | 91 | 92 |
| 9th | 93 | 94 | 95 9 | 6 | 97 | 98 | 99 | 100 | 101 1 | 02 1 | 03 |
| 10th | 104 | 105 ' | 106 10 | 7 | 108 | 109 | 110 | 111 | 112 1 | 13 1 | 14 |

| | OCCUPANT INJURY DATA | | | | | | | | | | |
|-----------|-----------------------------|----------------|----------------------------------|---|--------------------|--------------------|-------------|------------------|---|-------------------------------|---|
| | Source of Injury Data | Body Region | Type of Anatomic Structure | A.I.S 90 Specific Anatomic Structure | Level of Injury | A.I.S. Severity | Aspect | Injury Source | Injury Source Confidence Level | Direct/ Indirect Injury | Occupent Area Intrusion Number |
| 11th | _ | _ | _ | | | . — | | | _ | | |
| 12th | _ | _ | | | | | . — | · _ , | — | - | |
| 13th | | _ | _ | | | _ | _ | | _ | _ | |
| 14th | _ | _ | _ | | | _ | | | _ | _ | |
| 15th | _ | _ | | | | | · | | | _ | - - |
| 16th | | _ | _ | | | | | | _ | | |
| 17th | _ | _ | | | | _ | _ | · ——— | - | _ | |
| 18th | | | _ | | | | | | _ | _ | <u>-</u> |
| 19th | _ | ***** | ***** | | | _ | | | - | · | |
| 20th | | _ | _ | | | | | | · | _ | · · |
| 21st - | | _ | | | | | _ | | _ | _ | |
| 22nd | | _ | _ | | | _ | | | · | | |
| 23rd | | . | | | . | | | | . — | · - | |
| 24th | | | | | | | | <u> </u> | _ | | |
| 25th | | | | | | | | | | _ | |

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SOURCE OF INJURY DATA OFFICIAL

- (1) Autopsy records with or without hospital/ medical records
- (2) Hospital/medical records other than emergency room (e.g., discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- Private physician, walk-in or emergency clinic

UNOFFICIAL

- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewee
- (8) Other source (specify):
- (9) Police

INJURY SOURCE

FRONT

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (16) Driver side air bag compartment cover
- (17) Passenger side air bag compartment cover
- (18) Windshield reinforced by extenor object (specify):
- (19) Other front object (specify):

LEFT SIDE

- (20) Left side interior surface. excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A (A1/A2)-pillar
- (23) Left B-piller
- (24) Other left pillar (specify):

- (25) Left side window glass or fram
- (26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-piller, B-piller, or root side rail.
- (27) Other left side object (specify):
- (28) Left side window sill

RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest (32) Right A (A1/A2)-pillar
- Right B-piller (33)
- (34) Other right pillar (specify):
- (35) Right side window glass or frame
- Right side window glass including (36) one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (37) Other right side object (specify):
- (38) Right side window sill

INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar or door frame attechment point
- (43) Other restraint system component (specify):
- (44) Head restraint system
- (45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)
- (46) Other occupants (specify):
- (47) Interior loose objects
- (48) Child safety seat (specify):
- (49) Other interior object (specify):

ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FI OOR

- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR

(60) Backlight (rear window)

- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify):

EXTERIOR of OCCUPANT'S VEHICLE

- (65) Hood
- (66) Outside hardware (e.g., outside mirror, antenna)
- (67) Other exterior surface or tires (specify):
- (68) Unknown extenor objects

EXTERIOR OF OTHER MOTOR VEHICLE

- (70) Front bumper
- (71) Hood edge
- (72) Other front of vehicle (specify):
- (73) Hood
- (74) Hood omement
- (75) Windshield, roof rail, A-pillar
- (76) Side surface (77) Side mirrors
- (78) Other side protrusions (specify)
- (79) Rear surface
- (80) Undercamage
- (81) Tires and wheels
- (82) Other exterior of other motor vehicle (specify):
- (83) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (R4) Ground
- (85) Other vehicle or object (specify)
- (86) Unknown vehicle or object

NONCONTACT INJURY

- (90) Fire in vehicle
- (91) Flying glass
- (92) Other noncontact injury source (specify):
- (93) Air bag exhaust gases
- (97) Injured, unknown source

INJURY SOURCE CONFIDENCE LEVEL

- (1) Certain
- (2) Probable
- Possible
- Unknown

DIRECT/INDIRECT INJURY

- (1) Direct contact injury
- (2) Indirect contact injury
- (3) Noncontact injury Injured, unknown source

OCCUPANT INJURY CLASSIFICATION

Body Region

- Head
- Face
- (3) Neck Thorax
- (6) Abdomen
- (6) Spine
- (7) **Upper Extremity**
- (8) Lower Extremity (9) Unspecified

Type of Anatomic Structure

- Whole Area
- Vessels (2) Nerves
- (4) Organs (includes muscles/
- ligaments) Skeletal (includes joints)
- (6) Head - LOC

(3)

Specific Anatomic Structure

- Whole Area (02) Skin Abrasion (04) Skin Contusion
- Skin Lac ration
- (OB) Skin Avusion Amputation
- (10) (20) Burn
- (30) Crush
- (40) Degloving
- Injury NFS Trauma, other than mechanical (50)

LOC

- (02) Length of LOC (04, 06, 08) Level of Consciousness
- (10) Concussion

- (02) Cervical (04) Thoracic
- Vessels, Nerves, Organs, Bones, Joints are assigned consecutive two digit numbers beginning with 02

Level of injury

- Specific injuries are assigned consecutive two-digit numbers beginning with 02.
- To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.

Abbreviated Injury Scale

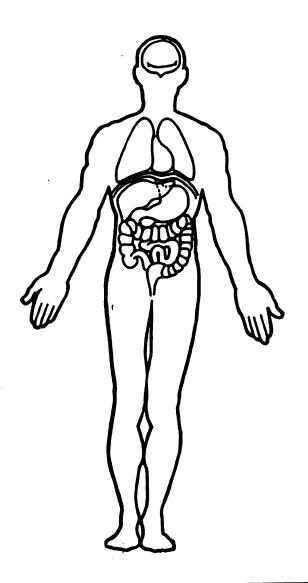
- Minor injury
- Moderate injury
- Serious injury Severe injury
- (5) Critical injury
- Maximum (untreatable) Injured, unknown severity

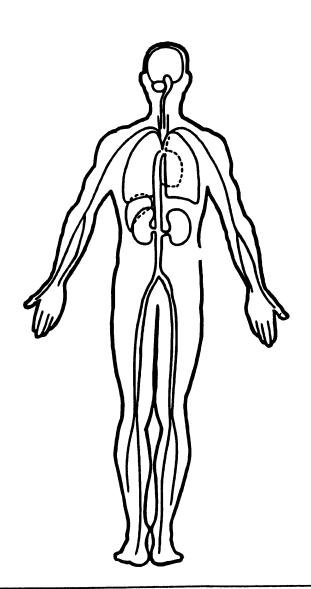
Aspect

- Right
- Bilateral
- Central (6) Anterior
- (6) Posterior
- Superior (8) Interior
- Whole region

OFFICIAL INJURY DATA —INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)





Appendix J:

NASS CDS OCCUPANT ASSESSMENT FORM:

CASE VEHICLE PASSENGER



U.S. Department of Transportation

OCCUPANT ASSESSMENT FORM

Form Approved O.M.B. No. 2127-0021

NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM National Highway Traffic Safety Administration

| 10 | OCCUPANT'S SEATING |
|--|--|
| 1. Primary Sampling Unit Number | 10. Occupant's Seat Position / 3 |
| 2. Case Number - Stratum 9416 | Front Seat |
| 3. Vehicle Number | (11) Left side (12) Middle |
| 4. Occupant Number | (13) Right side |
| OCCUPANT'S CHARACTERISTICS | (14) Other (specify): (15) On or in the lap of another occupant |
| | (15) Off of in the lap of another observation |
| 5. Occupant's Age Code actual age at time of accident. (00) Less than one year old (specify by month): (97) 97 years and older (99) Unknown | Second Seat (21) Left side (22) Middle (23) Right side (24) Other (specify): (25) On or in the lap of another occupant |
| 6. Occupant's Sex (1) Male (2) Female (9) Unknown | Third Seat (31) Left side (32) Middle (33) Right side (34) Other (specify): (35) On or in the lap of another occupant |
| 7. Occupant's Height Code actual height to the nearest centimeter. (999) Unknown 51 inches X 2.54 = 129 centimeters | Fourth Seat (41) Left side (42) Middle (43) Right side (44) Other (specify): (45) On or in the lap of another occupant (97) In or on unenclosed area (98) Other seat (specify): (99) Unknown |
| 8. Occupant's Weight Code actual weight to the nearest kilogram. (999)Unknown 58 pounds X .4536 = 26 kilograms | 11. Occupant's Posture (0) Normal posture Abnormal posture |
| 9. Occupant's Role (1) Driver (2) Passenger (9) Unknown | (1) Kneeling or standing on seat (2) Lying on or across seat (3) Kneeling, standing or sitting in front of seat (4) Sitting sideways or turned to talk with another occupant or to look out a rear window (5) Sitting on a console (6) Lying back in a reclined seat position (7) Bracing with feet or hands on a surface in front of seat (8) Other abnormal posture (specify): |

| | | | EJECTION/E | NTRAPMENT |
|-----|--|---|------------|--|
| 12. | (2) Partial | ete ejection ejection n, unknown degree | 0 | 15. Medium Status (Immediately Prior To Impact) O (0) No ejection (1) Open (2) Closed (3) Integral structure (9) Unknown |
| 13. | Ejection Ar (0) No ejec (1) Windsh (2) Left fro (3) Right fro (4) Left rea (5) Right ro (6) Rear (7) Roof (8) Other a (specif (9) Unknown | ction nield ont ront ar ear area (e.g., back of pickup, y): | <u>D</u> | 16. Entrapment (NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.) (0) Not entrapped (1) Entrapped (9) Unknown |
| 14. | (2) Nonfix (3) Fixed (4) Nonfix (5) Integra | ction latch/tailgate led roof structure glazing led glazing (specify): ll structure medium (specify): | <u>o</u> | |
| ~ | | | | |
| | | | | |

| RESTRAINT SYST | EM EVALUATION |
|--|--|
| 17. Manual (Active) Belt System Availability (0) None available (1) Belt removed/destroyed (2) Shoulder belt (3) Lap belt (4) Lap and shoulder belt (5) Belt available—type unknown Integral Belt Partially Destroyed (6) Shoulder belt (lap belt destroyed/removed) (7) Lap belt (shoulder belt destroyed/removed) | 21. Air Bag System Availability/Function (O) Not equipped/not available (1) Air bag Non-functional (2) Air bag disconnected (specify): (3) Air bag not reinstalled (9) Unknown |
| (8) Other belt (specify): (9) Unknown 18. Manual (Active) Belt System Use (00) None used, not available, or belt removed/destroyed (01) Inoperative (specify): (02) Shoulder belt (03) Lap belt (04) Lap and shoulder belt (05) Belt used—type unknown (08) Other belt used (specify): | 22. Air Bag System Deployment (0) Not equipped/not available (1) Air bag deployed during accident (as a result of impact) (2) Air bag deployed inadvertently just prior to accident (3) Air bag deployed, accident sequence undetermined (4) Nondeployed (5) Unknown if deployed (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical) (9) Unknown |
| (12) Shoulder belt used with child safety seat (13) Lap belt used with child safety seat (14) Lap and shoulder belt used with child safety seat (15) Belt used with child safety seat—type unknown (18) Other belt used with child safety seat (specify): (99) Unknown if belt used 19. Proper Use of Manual (Active) Belts (0) None used or not available (1) Belt used properly (2) Belt used properly with child safety seat | 23. Are There indications of Air Bag System Failure? (0) Not equipped/not available (1) No (2) Yes (specify): Intlator started bog (9) Unknown on fire Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts |
| Belt Used Improperly (3) Shoulder belt worn under arm (4) Shoulder belt worn behind back or seat (5) Belt worn around more than one person (6) Lap belt worn on abdomen (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): (8) Other improper use of manual belt system (specify): (9) Unknown | 24. Police Reported Restraint Use (0) None used (1) Police did not indicate restraint use (2) Shoulder belt (3) Lap belt (4) Lap and shoulder belt (5) Belt used, type not specified (6) Child safety seat (7) Other or automatic restraint (specify): LAPE Shoulder + AIR BAG (8) Restrained, type unknown (9) Police indicated "unknown" |
| 20. Manual (Active) Belt Failure Modes During Accident (0) No manual belt used (1) No manual belt failure(s) (2) Torn webbing (stretched webbing not included) (3) Broken buckle or latchplate (4) Upper anchorage separated (5) Other anchorage separated (specify): (6) Broken retractor (7) Combination of above (specify): (8) Other manual belt failure (specify): | |

| | HEAD RESTRAINT AN | D SEAT EVALUATION |
|-----|--|--|
| 25. | Head Restraint Type/Damage by Occupant at This Occupant Position (0) No head restraints (1) Integral—no damage (2) Integral—damaged during accident (3) Adjustable—no damage (4) Adjustable—damaged during accident (5) Add-on—no damage (6) Add-on—damaged during accident (8) Other (specify): | 27. Seat Performance (this Occupant Position) (0) Occupant not seated or no seat (1) No seat performance failure(s) (2) Seat adjusters failed (3) Seat back folding locks or "seat back" failed (specify): (4) Seat track/anchors failed (5) Deformed by impact of occupant (6) Deformed by passenger compartment intrusion (specify): |
| | (9) Unknown | (7) Combination of above (specify): |
| 26. | Seat Type (this Occupant Position) (00) Occupant not seated or no seat (01) Bucket | (8) Other (specify): |
| | (02) Bucket with folding back (03) Bench (04) Bench with separate back cushions (05) Bench with folding back(s) (06) Split bench with separate back cushions (07) Split bench with folding back(s) (08) Pedestal (i.e., column supported) (09) Other seat type (specify): | |
| | (10) Box mounted seat (i.e., van type) (99) Unknown | |
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| | CHILD SA | FETY SEAT |
|-----|---|---|
| 28. | Child Safety Seat Make/Model (000) No child safety seat | 31. Child Safety Seat Harness Usage O |
| | Applicable codes are found in your NASS CDS Data Collection, Coding and Editing (950) Built-in child safety seat | 32. Child Safety Seat Shield Usage |
| | (997) Other make/model (specify): (998) Unknown make/model | 33. Child Safety Seat Tether Usage |
| | (999) Unknown if child safety seat used | Note: Options below applicable to Variables OA31-OA33. (00) No child safety seat |
| 29. | Type of Child Safety Seat (0) No child safety seat (1) Infant seat (2) Toddler seat (3) Convertible seat | Not Designed With Harness/Shield/Tether (01) After market harness/shield/tether added, not used (02) After market harness/shield/tether used (03) Child safety seat used, but no after market |
| | (4) Booster seat (7) Other type child safety seat (specify): | harness/shield/tether added (09) Unknown if harness/shield/tether added or used |
| | (8) Unknown child safety seat type(9) Unknown if child safety seat used | Designed With Harness/Shield/Tether (11) Harness/shield/tether not used (12) Harness/shield/tether used (19) Unknown if harness/shield/tether used |
| 30. | Child Safety Seat Orientation (00) No child safety seat | Unknown If Designed With Harness/Shield/Tether (21) Harness/shield/tether not used |
| | Designed for Rear Facing for This Age/Weight (01) Rear facing (02) Forward facing | (22) Harness/shield/tether used (29) Unknown if harness/shield/tether used |
| | (08) Other orientation (specify): | (99) Unknown if child safety seat used |
| | (09) Unknown orientation | |
| | Designed For Forward Facing for This Age/Weight (11) Rear facing (12) Forward facing (18) Other orientation (specify): | |
| | (19) Unknown orientation | |
| | Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight (21) Rear facing (22) Forward facing (28) Other orientation (specify): | |
| | (29) Unknown orientation | |
| | (99) Unknown if child safety seat used | |
| | | |
| | | |

| | INJURY CONSEQUENCES | 38. Working Days Lost |
|-----|--|---|
| 34. | Injury Severity (Police Rating) | Code the number of days (up through 60) that the occupant |
| 1 | (0) O - No injury | lost from work due to the accident |
| l | (1) C - Possible injury | (00) No working days lost |
| l | (2) B - Nonincapacitating injury | (61) 61 days or more (62) Fatally injured |
| | (3) A - Incapacitating injury | (97) Not working prior to accident |
| | (4) K - Killed | (99) Unknown |
| | (5) U - Injury, severity unknown | (55) Chalows |
| | (6) Died prior to accident | |
| 1 | (9) Unknown | STOP - GO TO VARIABLE 44 ON PAGE 7 |
| | | VARIABLES 39 THROUGH 43 ARE |
| 35 | Treatment - Mortality 4 | COMPLETED BY THE ZONE CENTER |
| 35. | (0) No treatment | CORPLETED BY TARECULE CONT. |
| | (1) Fatal | |
| | (2) Fatal - ruled disease (specify): | 39. Time to Death |
| | | Code number of hours from time of |
| | | accident to time of death up through 24 |
| | Nonfatal | hours. If time of death is greater than 24 |
| | (3) Hospitalization | hours, code number of days. (Note: 1 day = |
| 1 | (4) Transported and released | 31, 2 days = 32, n days = 30 +n up |
| l | (5) Treatment at scene - nontransported | through 30 days = 60) |
| l | (6) Treatment later | (00) Not fatal |
| | (8) Treatment - other (specify): | (96) Fatal - ruled disease |
| | (O) Helicour | (99) Unknown |
| | (9) Unknown | |
| | Turn Of Madical English (for Initial Treatment) | 40. 1st Medically Reported Cause of Death 💍 💍 |
| 36. | Type Of Medical Facility (for initial freatment) | _ |
| 1 | (0) Not treated at a medical facility | 41. 2nd Medically Reported Cause of Death 🔼 🔼 |
| į | (1) Trauma center (2) Hospital | 42. 3rd Medically Reported Cause of Death O |
| | (3) Medical clinic | Code the Occupant Injury from line |
| 1 | (4) Physician's office | number(s) for the medically reported |
| | (5) Treatment later at medical facility | injury(s) which reportedly contributed to |
| 1 | (8) Other (specify): | this occupant's death |
| | | (00) Not fatal or no additional causes |
| | (9) Unknown | (96) Mode of death given but specific |
| 1 | | injuries are not linked to cause |
| | \wedge \wedge | of death. (specify): |
| 37. | Hospital Stay | |
| | (00) Not Hospitalized | (97) Other result (includes fatal ruled |
| | Code the number of days (up through 60) | disease) (specify): |
| 1 _ | that the occupant stayed in hospital. | |
| ~ | (61) 61 days or more | (99) Unknown |
| | (99) Unknown | |
| | | 43. Number of Recorded Injuries for |
| 1 | | This Occupant |
| | | / Code the actual number of |
| 1 | | injuries recorded for this occupant. |
| 1 | | (00) No recorded injuries |
| 1 | | (97) Injured, details unknown |
| | | (99) Unknown if injured |
| | | |
| | | |
| | | · |

| | AUTOMATIC BELT SYSTEM | | 48. | Automatic (Passive) Belt Failure Modes |
|-----|---|------------|-----|---|
| 44. | Automatic (Passive) Belt System Availability/ Function (0) Not equipped/not available (1) 2 point automatic belts | <u>D</u> | | During Accident (0) Not equipped/not available/not in use (1) No automatic belt failure(s) (2) Torn webbing (stretched webbing not included) |
| | (2) 3 point automatic belts (3) Automatic belts - type unknown Non-functional | | | (3) Broken buckle or latchplate (4) Upper anchorage separated (5) Other anchorage separated (specify): |
| | (4) Automatic belts destroyed or rendered inoperative (9) Unknown | | | (6) Broken retractor (7) Combination of above (specify): (8) Other automatic belt failure (specify): |
| 45. | Automatic (Passive) Belt System Use | 0 | | (9) Unknown |
| | (0) Not equipped/not available/destroyed or rendered inoperative (1) Automatic belt in use (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify): (3) Automatic belt use unknown (9) Unknown | | 49. | Seat Orientation (this Occupant Position) (0) Occupant not seated or no seat (1) Forward facing seat (2) Rear facing seat (3) Side facing seat (inward) (4) Side facing seat (outward) (8) Other (specify): |
| 46 | Automatic (Passive) Belt System Type | \bigcirc | | (9) Unknown |
| 40. | (0) Not equipped/not available (1) Non-motorized system (2) Motorized system (9) Unknown | - | | |
| | | | | Check the Primary Source Used In Determining Belt Use. |
| 47. | Proper Use of Automatic (Passive) Belt System (0) Not equipped/not available/not used (1) Automatic belt used properly (2) Automatic belt used properly with child safety seat | 0 | | [] Not equipped/not available/destroyed or rendered inoperative [/ Vehicle inspection [] Official injury data [] Driver/occupant interview [] Other (specify): |
| | Automatic Belt Used Improperly (3) Automatic shoulder belt worn under arm (4) Automatic shoulder belt worn behind back (5) Automatic belt worn around more than | | | [] Unknown if belt used |
| | one person (6) Lap portion of automatic belt worn on abdomen | | | |
| | (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): | | | |
| | (8) Other improper use of automatic belt syste (specify): | em | | |
| | (9) Unknown | | | |
| | ARE ALL APPLICABLE MEDICAL R WITH INITIAL SUBMISSION? | ECOI | RDS | INCLUDED NO[] YES [|
| | UPDATE CANDIDA | TE? | | NO [/ YES [] |

| | AND THE PLANTING THE PARTY OF T | | | BELT USE DETERMINATION | |
|-----|--|-----|-------------------|---|--|
| Č | OP - VARIABLES 50 THROUGH 53 ARE MPLETED BY THE ZONE CENTER | 53. | Prim (O) | or rendered inoperative | |
| | TRAUMA DATA | | (1) (2) | Vehicle inspection Official injury data | |
| 50. | Glasgow Coma Scale (GCS) Score (at Medical Facility) (00) Not injured (01) Injured - not treated at medical facility (02) No GCS Score at medical facility (03-15) Code the actual value of the initial GCS Score recorded at medical facility. (97) Injured, details unknown (99) Unknown if injured | | (3) (8) (9) | Driver/occupant interview | |
| 51. | Was the Occupant Given Blood? (1) No - blood not given (2) Yes - blood given (specify units): (9) Unknown if blood given | | | | |
| 52. | Arterial Blood Gases (ABG) – HCO ₃ (00) Not injured (01) Injured, ABGs not measured or reported (02-50) Code the actual value of theHCO ₃ (96) ABGs reported, HCO ₃ unknown (97) Injured, details unknown (99) Unknown if injured | | | | |
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Appendix K:

NASS CDS OCCUPANT INJURY FORM:

CASE VEHICLE PASSENGER

Administration

U.S. Department of Transportation

National Highway Traffic Safety

2. Case Number - Stratum

OCCUPANT INJURY FORM

Form Approved O.M.B. No. 2127-0021

NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

0

3. Vehicle Number

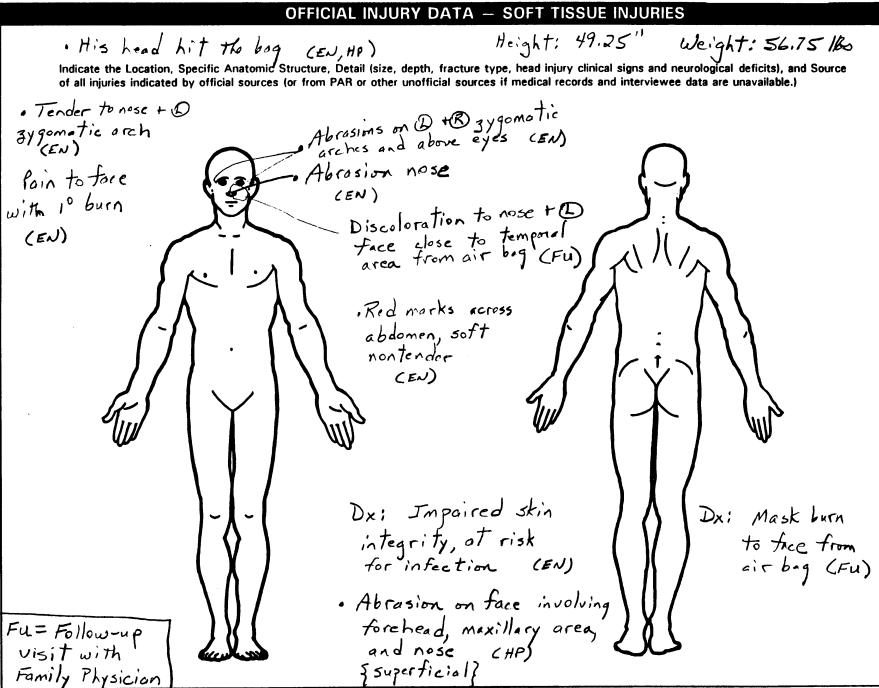
4. Occupant Number

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

| | | | | A.I.S | 90 | | | | Injury | | Occupant |
|------|-----------------------------|----------------|----------------------------------|--------------|--------------------|--------------------|--------------|------------------|-------------------------------|-------------------------------|-----------------------------|
| | Source of Injury Data | Body Region | Type of Anatomic Structure | | Level of Injury | A.I.S. Severity | Aspect | Injury Source | Source Confidence Level | Direct/ Indirect Injury | Area Intrusion Number |
| 1et | 5. <u>3</u> | 6. <u>2</u> | 7. <u>9</u> | 8. <u>02</u> | 9. <u>0 2</u> | 10. / | 11. <u>O</u> | 12. <u>45</u> | . 13/ | 14. <u>/</u> | 15. <u>0</u> 0 |
| 2nd | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 3rd | 27 | 28 | 29 3 | 30 | 31 | 32 | 33 | 34 | 35 ; | 36 | 37. <u> </u> |
| 4th | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |
| 5th | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 |
| 6th | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 7th | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 |
| 8th | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 |
| 9th | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 1 | 02 1 | 03 |
| 10th | 104 | 105 | 106 1 | 07. | 108. | 109. | 110. | 111. | 112. 1 | 13. 1 | 114. |

| | OCCUPANT INJURY DATA | | | | | | | | | | |
|--------------|-----------------------------|----------------|----------------------------------|---|--------------------|--------------------|----------------|------------------|---|-------------------------------|---|
| | Source of Injury Data | Body Region | Type of Anatomic Structure | A.I.S 90 Specific Anatomic Structure | Level of Injury | A.I.S. Severity | Aspect | Injury Source | Injury Source Confidence Level | Direct/ Indirect Injury | Occupent Area Intrusion Number |
| 11th | | _ | | | | | , - | | _ | | |
| 12th | _ | | | | | | ****** | | | | · |
| 13th | | _ | | | | _ | | | _ | _ | |
| 14th | _ | _ | _ | | | _ | _ | | | _ | |
| 15th | | _ | _ | | | _ | | | | | |
| 16th | _ | | | | | _ | _ | | _ | | |
| 17th | _ | | | | | _ | | | | | |
| 18th | _ | _ | _ | | _ | _ | _ | | _ | _ | |
| 19th | aparticular- | | _ | | | | _ | | | | |
| 20th | _ | | _ | | | | | | | _ | |
| 21st - | | _ | | | | | _ | | | | |
| 22 nd | _ | _ | · - | | | _ | | | | _ | |
| 23rd | - . | | _ | | | | | | | | |
| 24th | _ | _ | _ | | | | _ | | _ | | |
| 25th | | | | | | | | | | - | ·—— |



SOURCE OF INJURY DATA OFFICIAL

- (1) Autopsy records with or without hospital/ medical records
- (2) Hospital/medical records other than emergency room (e.g., discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency

UNOFFICIAL

- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewee (8) Other source (specify):
- (9) Police

INJURY SOURCE

FRONT

- (01) Windshield
- (O2) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, eir conditioner)
- Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel. mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (16) Driver side air bag compartment cover Passenger side air bag compartment cover (17)
- (18)Windshield reinforced by exterior object (specify):
- (19) Other front object (specify):

LEFT SIDE

- (20) Left side interior surface.
 - excluding hardware or armrests
- Left side hardware or armrest
- (22) Left A (A1/A2)-pillar
- (23) Left B-pillar
- (24) Other left piller (specify):

- (25) Left side window glass or frame
- (26) Left side window class including one or more of the following: trame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (27) Other left side object (specify):
- (28) Left side window sill

RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A (A1/A2)-pillar
- (33) Right B-piller
- (34) Other night piller (specify):
- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (37) Other right side object (specify):
- (38) Right side window sill

INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-piller or door frame attachment point
- (43) Other restraint system component (specify):
- (44) Head restraint system
- (45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)
- (46) Other occupants (specify):
- (47) Interior loose objects
- (48) Child safety seat (specify):
- (49) Other interior object (specify):

ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR

- (56) Floor (including toe pan)
- (57) Figor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR

(60) Backlight (rear window)

- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify):

EXTERIOR of OCCUPANT'S VEHICLE

- (65) Hood
- (66) Outside hardware (e.g., outside mirror, antenna)
- (67) Other exterior surface or tires (specify):
- (68) Unknown extenor objects

EXTERIOR OF OTHER MOTOR VEHICLE

- (70) Front bumper
- (71) Hood edge
- (72) Other front of vehicle (specify):
- (73) Hood
- (74) Hood ornament
- (75) Windshield, roof rail, A-pillar
- (76) Side surface (77) Side mirrors
- (78) Other side protrusions (specify)
- (79) Rear surface
- (80) Undercamage
- (81) Tires and wheels
- Other exterior of other motor vehicle (82) (specify):
- (83) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE **ENVIRONMENT**

(R4) Ground

- (85) Other vehicle or object (specify)
- (86) Unknown vehicle or object

NONCONTACT INJURY

- (90) Fire in vehicle
- (91) Flying glass
- (92) Other noncontact injury source (specify):
- (93) Air bag exhaust gases
- (97) Injured, unknown source

INJURY SOURCE CONFIDENCE LEVEL

- (1) Certain
- Probable
- Unknown

DIRECT/INDIRECT INJURY

- Direct contact injury
- 121 Indirect contact injury
- (3) Noncontact injury Injured, unknown source

OCCUPANT INJURY CLASSIFICATION

Body Region

- Head

(9)

- (3) Neck
- (4) (5) Abdomen
- (6) Spine Upper Extremity (7)
- (8) Lower Extremity Unspecified

Type of Anetomic Structure

- Whole Area
- (2) Vessels (3)
- Nerves Organs (includes muscles/ (4)
- ligaments) (5) Skeletal (includes joints)
- (6) Head - LOC

Specific Anatomic Structure

- Whole Area (02) Skin Abrasion (04) Skin Contusion
- (06) Skin Lac ration (08) Skin Av. sion
- Amputation
- (20) Rum
- (30) Crush
- (40) Degloving (50) Injury NFS
- Trauma, other than mechanical
- Head LOC (02) Length of LOC (04, 06, 08) Level of Consciousness
- (04) Thoracic

Cervical

Vessels, Nerves, Organs, Bones, two digit numbers beginning with 02

Level of Injury

Specific injuries are assigned consecutive two-digit numbers beginning with 02.

To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.

Abbreviated Injury Scale

- (1) Minor injury
- Moderate injury
- (3) Serious injury Severe injury
- (5) Critical injury Maximum (untreatable) (6)

(7) Injured, unknown severity Aspect

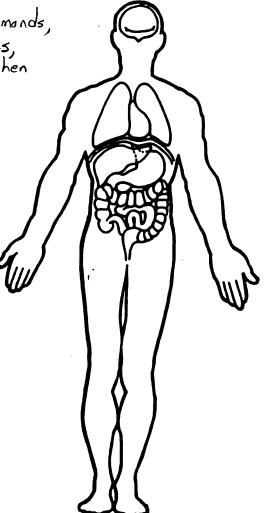
- Right (2)
- Left Bilateral (3)
- Central (5) Anterior
- (6) Posterio (7)Superior
- (8) Interior Unknown
- Whole region (0)

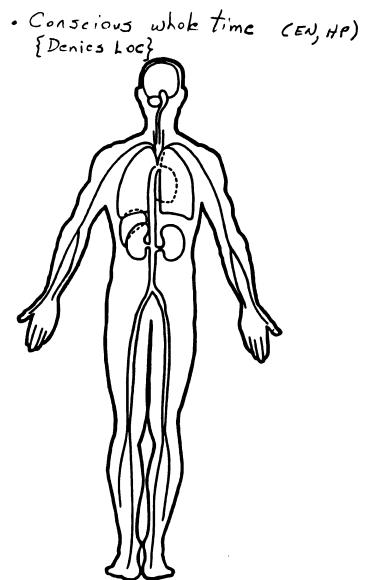
OFFICIAL INJURY DATA -INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

· Conscious and alert on arrival (EN)

obeys commands, moves eyes, oriented when speaking (EN)





| | | | HOSE | PITAL I/P ROOM | # |
|---------------------------------------|--|--|---------------------|------------------------------|--|
| MR#: | ADMICO | EMER | EMERGENCY/RECO | ORD E.R. ROOM | 1# |
| 111/4 | ADM:09 | 794 EMERGEN REL: | Admission Date/Time | U 2 Home Phone | Patient Soc Sec HIC No |
| AC#: | DOB: | | CIVIES | Race Brought By. | |
| L | | _ | W D SEP | Private Auto | Ambulance |
| Adgress | City | State | Zip Sex | Age / | ☐ Carried ☐ Carl 🗡 W:C |
| Primary Physician | On Call Physician | Heferral Physician | Errivitysician | Family Notified Time | Patient Patient |
| | | | | Exes No - | Belongings |
| Notified | 1832 Las page | Notified | Notified | Authorities Notified POLICE | Valuables ☐ SAFE |
| Response | Response | Response | 1835 Ans | CORONER | RELATIVE |
| AD141771110 001101 A111 | 8346A. | | 1837m. | Ву | ☐ TO ROOM |
| | T-ACCIDENT (WHERE-WHEN-H | | - 18.7 | | PAST MEDICAL HISTORY LMP |
| TREATMENT PRIOR TO | ARRIVAL INFIATA | PA, ~ 10 FA | - t / Dunns | | |
| | None | £ . | | | |
| | | | | | Allergies _N KO A |
| NURSE ASSESSMEN | NT | | | | |
| S: Zwm | involved in A CA | n cash Z | Lad my sent | Bolton | Last Tetanus |
| and the Am | . Bry come out. | They pain | to me face . | zt hunti | CURRENT NO. |
| up here and | | , , , , , , , , , , , , , , , , , , , | | | MEDS Ritalia |
| | les: "We were T | Tenvely about | 30-35 mph , H | e had his | |
| | on And the Ain | | | | |
| He was concil | no the whole to | is this happen | d | - , - G | |
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| to pensor, Date | of Boath and Day. | forms to ches | two palenti | abd. hor | 1820 - 96 18 984 |
| Claim All Lobes | in common and | in : - 1 t | 100 Tuck 1015 | grient All | |
| some ked manie | of Acnoss Abd. To consider Toes = D. To consider Toes = D. | Hout, Palvis, | stable, Atoupl | on Extents | |
| HAVE NO TRANS | a, upon impredim | of sie face the | ne is abanish " | - Just | |
| in the Zygenatic | MACL 11 NO LAKE | And my About the PE | - W ABOUT OF E | AND PUP.71 | Weight Height |
| mose and Lt gible | Eygoute and, the | را ۱۱ مد ت ر مرصم ! الحد ت ر مرصم ! | Fields of U-50 | e Prs | Visual Acuity |
| مر اطب سری دورون Obis | at to right and is o | ristated when sp. | enki Gbrasion c | 1 750 | ₹ glasses R |
| , | • / | | | | s glasses R |
| A: Zapained sh | Theofon | 11 AS MADON | MIB AS AS | oire. | Disposition |
| At Risk for | Zefection) | | • | | Transfer |
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| 1 KAZYANI DA | forge, R | and a second | Shan Cloude Do | come sale | ADM POLICE CUSTODY DECEASED Condition Disch, Time |
| Die. Notet | in the out med | مد در المرابع | ,,,,,,, | | Condition Disch. Time |
| | is give not not | | | _ | |
| E: Pt still Re | spends to commerce forther venbal. | rehz caron the | nd ,s onete | pm disold | |
| Um50-17, | fothe venbal. | my understones | of Zester. | | MODE OF DISCHARGE |
| | | | | | ☐ Wheelchair |
| MED/IV'S (None □) | NEOLON O. + | | Nurse's Signature | | ☐ Stretcher ☐ Carried |
| · · · · · · · · · · · · · · · · · · · | - | | | ~~ | Accompanied By |
| - | | | Assisted By | | |
| | | | | EK7-2 | |

HOSPITAL

EMERGENCY ROOM REPORT

PATIENT: DATE: 94 ER

cc:

RM#:

Dr.

REPORT

This is an 8 year old male who was brought to the Emergency Room by his father after an auto accident. The patient was belted in and when they had the sudden stop, the air bags inflated. Dad denies any problem, but he is concerned about his son because of redness in his face. Apparently he planted his face in the air bag. He denies any loss of consciousness

On exam, the child is alert and playful and in no acute distress. HEAD: Examination reveals an abrasion present on the face involving the forehead and maxillary area and nose. This all appears to be very superficial in nature. Pupils equal, round and react to light and accommodation. Extraocular muscles are intact. Conjunctivae are well injected. Ears clear with normal landmarks. The nose is patent and nontender. The oral mucosa is moist, tongue protrudes in the midline. The posterior pharynx not unusually injected.

NECK: Supple with no tenderness, no thyromegaly, carotid bruits or cervical adenopathy.

CHEST: Symmetrical.

HEART: Regular rate and rhythm. No murmurs, thrills or friction rubs.

LUNGS: Clear to auscultation. No rales, rhonchi or wheezing. ABDOMEN: Soft and nontender. No organs or masses palpable.

EXTREMITIES: Good range of motion. No clubbing, cyanosis or edema. The

child ambulates well with no problem.

IMPRESSION: Abrasions to the face.

PLAN: The abrasions were washed, Neosporin ointment was applied. Dad was

Continued

| HOSPITAL | I/P ROOM # | |
|---------------------|-------------|--------------------------|
| EMERGENCY/RECORD | E.R. ROOM # | |
| Admission Date/Time | Home Phone | Patient Soc. Sec./HIC No |

HISTORY AND PHYSICAL:

I sociated

DIAGNOSIS: Markon to fore

| INITIAL | DOCTOR S ORDERS | TIME | INITIAL | DOCTOR'S ORDERS | TIME |
|---------|---------------------------|------|---------|-----------------|------|
| | Niceann ventions & face - | | | | |
| | Nogala ventines & face | | | • | |
| | 1242 | | | | |
| | | | | | |
| | | | | | |
| | | | | • | |

MUSTRUCTIONS TO PATIENTS:

Neorpores sentent & alreston on free.

Tylinal for yours.

| PHYSICIAN'S SIGNATURE | | M.D. |
|--------------------------|--------------------|------|
| Discharged By: | | 2~ |
| ☐ CHECKOLIT INSTRUCTIONS | Other Instructions | |

Patient Signature The above signed verbalizes understanding of instructions.

EMERGENCY ROOM REPORT CONTINUED....

PATTENT:

RM#:

ER

instructed to apply the Neosporin ointment on a b.i.d. basis and give Tylenol for pain. Followup with the family physician p.r.n.

,D.O.

TR:

DT:

2

CLINIC

HISTORY NO.

| | | HISTORY | CONTINUATI | ON SHEET NO. | 13 |
|-----------|----------|---------|------------|--------------|----|
| | | | | | |
| RESPONSIB | LE PARTY | | | | |
| AGE | DATE OF | S | EY M | CIVIL STATE | |

DATE AND SIGN NAME

Frether stated that his fact was "braned"
wt-5634 Hospat that time. Didless trintment from
the Emerginey room.
Toon Litarix 3 mg jal ina.m. and /2405.

Enters for evaluation of a burn to the face from an air bag during an auto accident on 94. The patient has no other symptoms related to the auto accident except for minor discoloration of the nose and left side of the face close to the temporal area. The area of discoloration on the nose measures about 1-1/2 to The area of discoloration over the left temporal area close to the lateral orbit is close to $1-1/4 \times 1/2$ cm. ENT otherwise unremarkable.

IMPRESSION - Followup auto accident with discoloration of the face as the result of mask burn.

DD: 94 DT:

Appendix L:

NASS CDS OCCUPANT ASSESSMENT FORM:
VEHICLE #2 DRIVER



U.S. Department of Transportation National Highway Traffic Safety

OCCUPANT ASSESSMENT FORM

Form Approved O.M.B. No. 2127-0021

MATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM

| ioninaveren | OCCUPANTIC CEATING |
|--|--|
| 1. Primary Sampling Unit Number $\sqrt{\frac{1}{1000000000000000000000000000000000$ | OCCUPANT'S SEATING |
| 2. Case Number - Stratum 9416 | 10. Occupant's Seat Position/ |
| 3. Vehicle Number <u>O</u> <u>2</u> | (11) Left side (12) Middle |
| 4. Occupant Number | (13) Right side (14) Other (specify): |
| OCCUPANT'S CHARACTERISTICS | (15) On or in the lap of another occupant |
| 5. Occupant's Age Code actual age at time of accident. (00) Less than one year old (specify by month): (97) 97 years and older (99) Unknown | Second Seat (21) Left side (22) Middle (23) Right side (24) Other (specify): (25) On or in the lap of another occupant |
| 6. Occupant's Sex (1) Male (2) Female (9) Unknown | Third Seat (31) Left side (32) Middle (33) Right side (34) Other (specify): (35) On or in the lap of another occupant |
| 7. Occupant's Height Code actual height to the nearest centimeter. (999) Unknown (20) inches X 2.54 = 152 centimeters | Fourth Seat (41) Left side (42) Middle (43) Right side (44) Other (specify): (45) On or in the lap of another occupant (97) In or on unenclosed area (98) Other seat (specify): (99) Unknown |
| 8. Occupant's Weight Code actual weight to the nearest kilogram. (999)Unknown ////////////////////////////////// | 11. Occupant's Posture (0) Normal posture Abnormal posture (1) Kneeling or standing on seat (2) Lying on or across seat (3) Kneeling, standing or sitting in front of seat (4) Sitting sideways or turned to talk with another occupant or to look out a rear window (5) Sitting on a console (6) Lying back in a reclined seat position (7) Bracing with feet or hands on a surface in front of seat (8) Other abnormal posture (specify): (9) Unknown |
| | · |

| EJECTION/E | NTRAPMENT |
|---|--|
| 12. Ejection (0) No ejection (1) Complete ejection (2) Partial ejection (3) Ejection, unknown degree (9) Unknown | 15. Medium Status (Immediately Prior To Impact) (O) No ejection (1) Open (2) Closed (3) Integral structure (9) Unknown |
| 13. Ejection Area (0) No ejection (1) Windshield (2) Left front (3) Right front (4) Left rear (5) Right rear (6) Rear (7) Roof (8) Other area (e.g., back of pickup, etc.) (specify): (9) Unknown | 16. Entrapment (NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.) (0) Not entrapped (1) Entrapped (9) Unknown |
| 14. Ejection Medium (0) No ejection (1) Door/hatch/tailgate (2) Nonfixed roof structure (3) Fixed glazing (4) Nonfixed glazing (specify): (5) Integral structure | |
| (8) Other medium (specify): (9) Unknown | |
| - | - |
| | |

| RESTRAINT SYST | EM EVALUATION |
|--|---|
| 17. Manual (Active) Belt System Availability (0) None available (1) Belt removed/destroyed (2) Shoulder belt (3) Lap belt (4) Lap and shoulder belt (5) Belt available—type unknown Integral Belt Partially Destroyed (6) Shoulder belt (lap belt destroyed/removed) (7) Lap belt (shoulder belt destroyed/removed) | 21. Air Bag System Availability/Function (0) Not equipped/not available (1) Air bag Non-functional (2) Air bag disconnected (specify): (3) Air bag not reinstalled (9) Unknown |
| (8) Other belt (specify): (9) Unknown 18. Manual (Active) Belt System Use (00) None used, not available, or belt removed/destroyed (01) Inoperative (specify): (02) Shoulder belt (03) Lap belt (04) Lap and shoulder belt (05) Belt used—type unknown (08) Other belt used (specify): | 22. Air Bag System Deployment (0) Not equipped/not available (1) Air bag deployed during accident (as a result of impact) (2) Air bag deployed inadvertently just prior to accident (3) Air bag deployed, accident sequence undetermined (4) Nondeployed (5) Unknown if deployed (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical) (9) Unknown |
| (12) Shoulder belt used with child safety seat (13) Lap belt used with child safety seat (14) Lap and shoulder belt used with child safety seat (15) Belt used with child safety seat—type unknown (18) Other belt used with child safety seat (specify): (99) Unknown if belt used 19. Proper Use of Manual (Active) Belts (0) None used or not available (1) Belt used properly (2) Belt used properly with child safety seat | 23. Are There Indications of Air Bag System Failure? (0) Not equipped/not available (1) No (2) Yes (specify): (9) Unknown Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts |
| Belt Used Improperly (3) Shoulder belt worn under arm (4) Shoulder belt worn behind back or seat (5) Belt worn around more than one person (6) Lap belt worn on abdomen (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): (8) Other improper use of manual belt system (specify): (9) Unknown | 24. Police Reported Restraint Use (0) None used (1) Police did not indicate restraint use (2) Shoulder belt (3) Lap belt (4) Lap and shoulder belt (5) Belt used, type not specified (6) Child safety seat (7) Other or automatic restraint (specify): (8) Restrained, type unknown (9) Police indicated "unknown" |
| 20. Manual (Active) Belt Failure Modes During Accident (0) No manual belt used (1) No manual belt failure(s) (2) Torn webbing (stretched webbing not included) (3) Broken buckle or latchplate (4) Upper anchorage separated (5) Other anchorage separated (specify): (6) Broken retractor (7) Combination of above (specify): (8) Other manual belt failure (specify): | |

| | | HEAD RESTRAINT AN | D SI | EAT EVALUATION |
|-----|--|---|------|--|
| 25. | at Th (0) (1) (2) (3) (4) (5) (6) | d Restraint Type/Damage by Occupant his Occupant Position No head restraints Integral—no damage Integral—damaged during accident Adjustable—no damage Adjustable—damaged during accident Add-on—no damage Add-on—damaged during accident Other (specify): | 27. | Seat Performance (this Occupant Position) (0) Occupant not seated or no seat (1) No seat performance failure(s) (2) Seat adjusters failed (3) Seat back folding locks or "seat back" failed (specify): (4) Seat track/anchors failed (5) Deformed by impact of occupant (6) Deformed by passenger compartment intrusion (specify): |
| | (9) | Unknown | | (7) Combination of above (specify): |
| 20 | 24 | 2 | | (8) Other (specify): |
| 26. | (00) | Type (this Occupant Position) Occupant not seated or no seat Bucket | | (9) Unknown |
| | (02) (03) | Bucket with folding back Bench | | |
| | (05) | Bench with separate back cushions Bench with folding back(s) Split bench with separate back cushions | | |
| | (07) (08) | Split bench with folding back(s) Pedestal (i.e., column supported) Other seat type (specify): | | |
| | | Box mounted seat (i.e., van type) Unknown | | |
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| CHILD SAFETY SEAT | | | |
|-------------------|---|----|--|
| 28. | Child Safety Seat Make/Model (000) No child safety seat Applicable codes are found in your NASS CDS Data Collection, Coding and Editing (950) Built-in child safety seat (997) Other make/model (specify): | _ | 1. Child Safety Seat Harness Usage 2. Child Safety Seat Shield Usage |
| | (998) Unknown make/model (999) Unknown if child safety seat used | 3: | Note: Options below applicable to Variables OA31-OA33. (00) No child safety seat |
| 29. | Type of Child Safety Seat (0) No child safety seat (1) Infant seat (2) Toddler seat (3) Convertible seat (4) Booster seat (7) Other type child safety seat (specify): (8) Unknown child safety seat type (9) Unknown if child safety seat used | | Not Designed With Harness/Shield/Tether (01) After market harness/shield/tether added, not used (02) After market harness/shield/tether used (03) Child safety seat used, but no after market harness/shield/tether added (09) Unknown if harness/shield/tether added or used Designed With Harness/Shield/Tether (11) Harness/shield/tether not used (12) Harness/shield/tether used |
| 30. | Child Safety Seat Orientation (00) No child safety seat Designed for Rear Facing for This Age/Weight (01) Rear facing (02) Forward facing (08) Other orientation (specify): (09) Unknown orientation Designed For Forward Facing for This Age/Weight (11) Rear facing (12) Forward facing (18) Other orientation (specify): (19) Unknown orientation Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight (21) Rear facing (22) Forward facing (28) Other orientation (specify): (29) Unknown orientation (99) Unknown if child safety seat used | | Unknown if Designed With Harness/Shield/Tether (21) Harness/shield/tether not used (22) Harness/shield/tether used (29) Unknown if harness/shield/tether used (99) Unknown if child safety seat used |
| | | | |

| | INJURY CONSEQUENCES | 38. Working Days Lost <u>O /</u> |
|-----|---|--|
| 34. | Injury Severity (Police Rating) | Code the number of days (up through 60) that the occupant lost from work due to the accident |
| | (0) O - No injury | (00) No working days lost |
| | (1) C - Possible injury (2) B - Nonincapacitating injury | (61) 61 days or more |
| | (3) A - Incapacitating injury | (62) Fatally injured |
| | (4) K - Killed | (97) Not working prior to accident (99) Unknown |
| | (5) U - Injury, severity unknown | (99) Onknown |
| | (6) Died prior to accident | |
| | (9) Unknown | STOP - GO TO VARIABLE 44 ON PAGE 7 |
| 35. | Treatment - Mortality 6 | VARIABLES 39 THROUGH 43 ARE COMPLETED BY THE ZONE CENTER |
| | (0) No treatment | |
| | (1) Fatal | |
| | (2) Fatal - ruled disease (specify): | 39. Time to Death |
| | | Code number of hours from time of |
| | Nonfatal | accident to time of death up through 24 |
| | Nonfatal (3) Hospitalization | hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = |
| | (4) Transported and released | nours, code number of days. (Note: 1 day = $31, 2 \text{ days} = 32, \dots \text{n days} = 30 + \text{n up}$ |
| | (5) Treatment at scene - nontransported | through 30 days = 60) |
| | (6) Treatment later | (00) Not fatal |
| | (8) Treatment - other (specify): | (96) Fatal - ruled disease |
| | (0) 11-1 | (99) Unknown |
| | (9) Unknown | |
| 20 | Type Of Medical Facility (for Initial Treatment) 5 | 40. 1st Medically Reported Cause of Death 🔼 🔿 |
| 36. | (0) Not treated at a medical facility | 44 Ond Madically Renomed Course of Rooth |
| | (1) Trauma center | 41. 2nd Medically Reported Cause of Death |
| | (2) Hospital | 42. 3rd Medically Reported Cause of Death |
| | (3) Medical clinic | Code the Occupant Injury from line |
| | (4) Physician's office | number(s) for the medically reported |
| | (5) Treatment later at medical facility | injury(s) which reportedly contributed to |
| | (8) Other (specify): | this occupant's death |
| | (9) Unknown | (00) Not fatal or no additional causes |
| | (O) Challetti | (96) Mode of death given but specific injuries are not linked to cause |
| | A . | of death. (specify): |
| 37. | Hospital Stay O | |
| | (00) Not Hospitalized | (97) Other result (includes fatal ruled |
| | Code the number of days (up through 60) | disease) (specify): |
| _ | that the occupant stayed in hospital. (61) 61 days or more | (00): Halinavia |
| _ | (99) Unknown | (99) Unknown |
| | , | |
| | | 43. Number of Recorded Injuries for |
| | | This Occupant |
| | | Code the actual number of |
| | | injuries recorded for this occupant. |
| | | (00) No recorded injuries |
| | | (97) Injured, details unknown (99) Unknown if injured |
| | | 100/ Clikilowii ii ilijuleu |
| | | |
| | | |
| | | |

| 44. | AUTOMATIC BELT SYSTEM Automatic (Passive) Belt System Availability/ Function | | | Automatic (Passive) Belt Failure Modes During Accident (0) Not equipped/not available/not in use (1) No automatic belt failure(s) |
|-----|--|----------|-----|---|
| | (0) Not equipped/not available (1) 2 point automatic belts (2) 3 point automatic belts (3) Automatic belts - type unknown | | | (2) Torn webbing (stretched webbing not included) (3) Broken buckle or latchplate (4) Upper anchorage separated (5) Other anchorage separated (specify): |
| | Non-functional (4) Automatic belts destroyed or rendered inoperative (9) Unknown | | | (6) Broken retractor (7) Combination of above (specify): (8) Other automatic belt failure (specify): (9) Unknown |
| 45. | Automatic (Passive) Belt System Use (0) Not equipped/not available/destroyed or | _ | | (3) Olikhowii |
| | (1) Not equipped not available/destroyed of rendered inoperative (1) Automatic belt in use (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify): (3) Automatic belt use unknown (9) Unknown | | 49. | Seat Orientation (this Occupant Position) (0) Occupant not seated or no seat (1) Forward facing seat (2) Rear facing seat (3) Side facing seat (inward) (4) Side facing seat (outward) (8) Other (specify): |
| | | | | (9) Unknown |
| 46. | Automatic (Passive) Belt System Type (0) Not equipped/not available (1) Non-motorized system (2) Motorized system (9) Unknown | <u> </u> | | |
| | | | | Check the Primary Source Used In Determining Belt Use. |
| 47. | Proper Use of Automatic (Passive) Belt System (0) Not equipped/not available/not used (1) Automatic belt used properly (2) Automatic belt used properly with child safety seat Automatic Belt Used Improperly | 2 | | [] Not equipped/not available/destroyed or rendered inoperative [/] Vehicle inspection [] Official injury data [] Driver/occupant interview [] Other (specify): |
| | (3) Automatic shoulder belt worn under arm (4) Automatic shoulder belt worn behind back (5) Automatic belt worn around more than one person | | | Unknown ii beit useu |
| | (6) Lap portion of automatic belt worn on abdomen (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): | | | |
| | (8) Other improper use of automatic belt system (specify):(9) Unknown | | | |
| | ARE ALL APPLICABLE MEDICAL REC WITH INITIAL SUBMISSION? | OR | DS | INCLUDED NO[] YES[|
| | UPDATE CANDIDATE | :7 | | NO IA YES [] |

| CTOR HARVANIES E | STANDONEN-STARE | | | BELT USE DETERMINATION | |
|--|---|-----|--------------------------|--|---|
| STOP-VARIABLES 5 COMPLETED BY THE | ZONE CENTER | 53. | (O) (1) | or rendered inoperative Vehicle inspection | 4 |
| 50. Glasgow Coma Scale (at Medical Facility) (00) Not injured (01) Injured - not treat (02) No GCS Score at (03-15) Code the actu | ed at medical facility medical facility al value of the recorded at medical | | (2) (3) (8) (9) | Driver/occupant interview Other (specify): | · |
| 51. Was the Occupant Give (1) No - blood not give (2) Yes - blood given (specify units): (9) Unknown if blood | en | | | | |
| 52. Arterial Blood Gases (A) (00) Not injured (01) Injured, ABGs no (02-50) Code the actu (96) ABGs reported, (97) Injured, details ui (99) Unknown if injured | t measured or reported al value of theHCO3 HCO3 unknown | | | | |
| | | | | | |

Appendix M:

NASS CDS OCCUPANT INJURY FORM:
VEHICLE #2 DRIVER

Administration

U.S. Department of Transportation National Highway Traffic Safety

OCCUPANT INJURY FORM

Form Approved O.M.B. No. 2127-0021

NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

3. Vehicle Number

2. Case Number - Stratum

4. Occupant Number

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

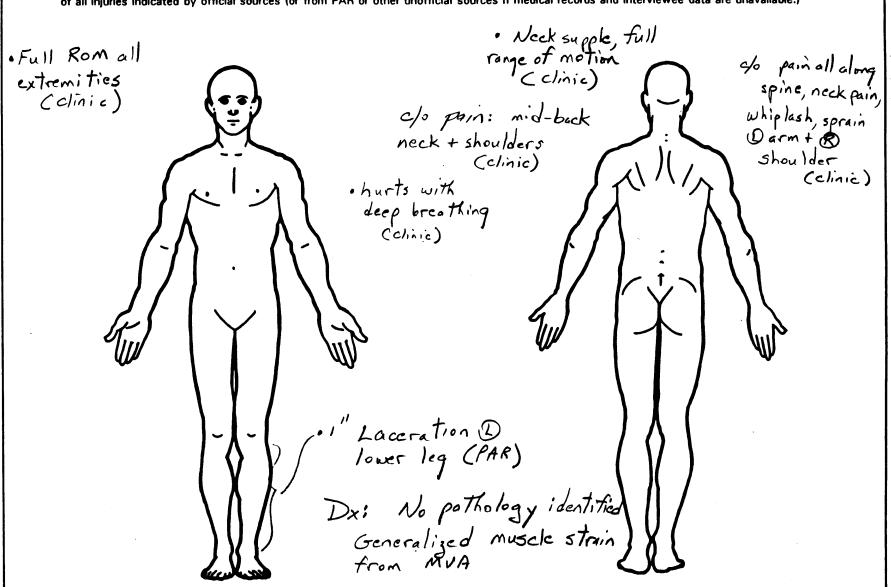
| : | Source | | Type of | A.I.S | 90 | | • | | Injury Source | Direct/ | Occupant Area |
|------|-------------------|----------------|-----------------------|---------------|--------------------|--------------------|--------|--------------------------|---------------------|--------------------|---------------------|
| | of Injury Data | Body Region | Anatomic Structure | Anatomic | Level of Injury | A.I.S. Severity | Aspect | Injury Source | Confidence Level | Indirect Injury | Intrusion Number |
| 1 st | 5. <u>3</u> | 6. <u>6</u> | 7. <u>4</u> | 8. <u>Ø 2</u> | 9. <u>7</u> 8 | 10 | 11.6 | 12. 92 | 132 | 14. <u>3</u> | 15. 00 |
| 2nd | 16. 7 | 17. <u>8</u> | 18.9 | 19. 06 | 20. 02 | 21 | 22.2 | _{23.} <u>09</u> | 24. / | 25. / | 26. <u>06</u> |
| 3rd | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 |
| 4th | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |
| 5th | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57. | 58 | 59 |
| 6th | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 7th | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 |
| 8th | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 |
| 9th | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 1 | 02 1 | 03 |
| 10th | 104 | 105 | 106 1 | 07 | 108 | 109 | 110 | 111 | 112 1 | 13 1 | 14 |

| | | | | occi | JPANT | NJURY | DATA | | | | |
|------|-----------------------------|----------------|----------------------------------|---|--------------------|--------------------|-------------|------------------|---|-------------------------------|---|
| | Source of Injury Data | Body Region | Type of Anatomic Structure | A.I.S 90 Specific Anatomic Structure | Level of Injury | A.I.S. Severity | Aspect | Injury Source | Injury Source Confidence Level | Direct/ Indirect Injury | Occupant Area Intrusion Number |
| 11th | | _ | | | | _ | _ | | _ | _ | |
| 12th | _ | _ | | | | <u>.</u> | _ | | _ | _ | |
| 13th | | _ | _ | | | | _ | | _ | | |
| 14th | _ | | | | | | | | _ | | |
| 15th | _ | | | | | | | | | | |
| 16th | _ | | | | | _ | | | · <u> </u> | · | |
| 17th | | | | | . | | _ | | | | |
| 18th | | _ | _ | | | _ | _ | | _ | | <u> </u> |
| 19th | | _ | _ | | | _ | _ | | | - | |
| 20th | | | | | | | _ | | | | |
| 21st | _ | | _ | | | _ | | | _ | | |
| 22nd | _ | _ | _ | | | _ | | | | _ | , |
| 23rd | . | | _ | | . | _ | | | | - - | |
| 24th | | _ | _ | | | | | | _ | | |
| 25th | | _ | | | | | | | - | - | |



· Danies significant bruising or locerations (clinic)

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



SOURCE OF INJURY DATA

- (1) Autopsy records with or without hospital/ redical records
- (2) Hospital/medical records other than emergency room (e.g., discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency

UNOFFICIAL

- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewes
- (8) Other source (specify):
- (9) Police

INJURY SOURCE

- (01) Windshield
- (O2) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape
- deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (16) Driver side air bag compartment cover
- Passenger side air bag compartment cover (18) Windshield reinforced by exterior object
- (specify):_ (19) Other front object (specify):

LEFT SIDE

- (20) Left side interior surface. excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A (A1/A2)-piller
- (23) Left B-piller
- (24) Other left pillar (specify):

- (25) Left side window glass or frame
- (26) Left side window glass including one or more of the following: trame, window sill, A (A1/A2)-pillar, B-piller, or root side rail.
- (27) Other left side object (specify):
- (28) Left side window sill

RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A (A1/A2)-pillar
- (33) Right B-piller
- (34) Other right pillar (specify):
- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (37) Other right side object (specify):
- (38) Right side window sill

INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-piller or door frame attachment point
- (43) Other restraint system component (specify):_
- (44) Head restraint system
- (45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)
- (46) Other occupants (specify):
- (47) interior loose objects
- (48) Child safety seat (specify):
- (49) Other interior object (specify):

ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR

- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR

Specific Anatomic Structure

Whole Area (02) Skin - Abrasion (04) Skin - Contusion

(06) Skin - Lac ration

Amoutation

(OB) Skin - Av. sion

(10)

(20)

(30) Crush

(60) Backlight (rear window)

- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify):

EXTERIOR of OCCUPANT'S VEHICLE

- (65) Hood
- (66) Outside hardware (e.g., outside mirror, antenna)
- (67) Other exterior surface or tires (specify):
- (68) Unknown extenor objects

EXTERIOR OF OTHER MOTOR VEHICLE

- (70) Front bumper
- (71) Hood edge
- (72) Other front of vehicle (specify):
- (73) Hood
- (74) Hood omament
- (75) Windshield, roof rail, A-pillar
- (76) Side surface
- (77) Side mirrors
- (78) Other side protrusions (specify)
- (79) Rear surface
- (80) Undercamage
- (81) Tires and wheels
- (82) Other exterior of other motor vehicle (specify):
- (83) Unknown extenor of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE **ENVIRONMENT**

- (B4) Ground
- (85) Other vehicle or object (specify)
- (86) Unknown vehicle or object

NONCONTACT INJURY

- (90) Fire in vehicle
- (91) Flying glass
- (92) Other noncontact injury source (specify):
- (93) Air bag exhaust gases
- (97) Injured, unknown source

INJURY SOURCE CONFIDENCE LEVEL

- (1) Certair
- Probable (2)
- Possible (3)
- Unknown

DIRECT/INDIRECT INJURY

- (1) Direct contact injury
- Indirect contact injury (2) (3) Noncontact injury
- Injured, unknown source

OCCUPANT INJURY CLASSIFICATION

Body Region

- 111 Head
- Face
- (3) Neck Thorax
- (5) Abdomen
- (6) Spine **Upper Extremity**
- (8) Lower Extremity

Type of Anatomic Structure

- Vessels (2)
- (3)
- ligaments) Skeletal (includes joints)
- Head LOC Skin
- Whole Area

Head - LOC

- Nerves Organs (includes muscles/
- (40) Degloving (50) Injury NFS (90) Trauma, other than mechanical

- (02) Length of LOC (04, 06, 08) Level of Consciousness

- Spine (02) Cervical (04) Thoracic
- Vessels, Nerves, Organs, Bones, Joints are assigned consecutive two digit numbers beginning with 02

Level of Injury

- Specific injuries are assigned consecutive two-digit numbers beginning with 02.
- To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.

Abbreviated Injury Scale

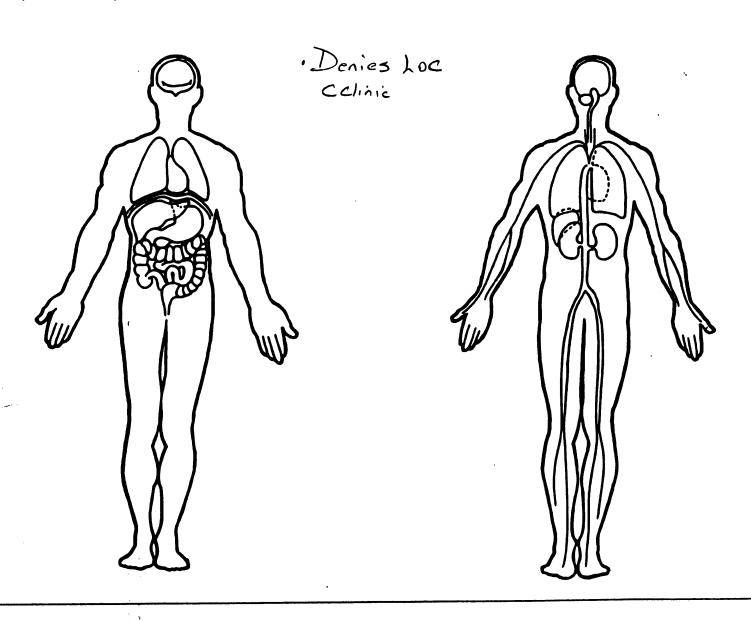
- Minor injury
- Moderate injury (3) Serious injury
- (5) Critical injury Maximum (untreatable)
- (7) Injured, unknown severity

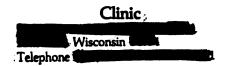
Aspect

- Left
- Bilateral
- Central
- **(5)** Anterior
- (7) Superior
- Unknown
- Whole region

OFFICIAL INJURY DATA - INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

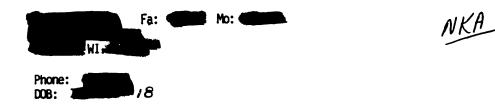




PATIENT REGISTRATION

Flight Physicals Evening Hours

| PATIENT NAME | DATE OF BIRTH |
|---|----------------------------------|
| STREET ADDRESS | P.O. BOX |
| CITY/STATE WI | ZIP MARTIAL STATUS (S) M W SEP D |
| TELEPHONE NUMBER | SOCIAL SECURITY NUMBER |
| SPOUSE OR PARENTS NAME | PHONE |
| RELATIVE (other than spouse) | PHONE |
| RELATIVE'S ADDRESS | |
| INSURANCE INFORMATION- | |
| MEDICARE () YES () NO NUMBERS | |
| MEDICAL ASSISTANCE () YES () NO PLEASE PRESEN | T CARD |
| OTHER INSURANCE - | |
| NAME OF COMPANY | |
| COMPANY ADDRESS | WI |
| NUMBERS- | GROUP NUMBER |
| PATIENT'S EMPLOYER | |
| EMPLOYER NAME Self | PHONE |
| EMPLOYER'S ADDRESS | · . |
| SPOUSE OR PARENTS EMPLOYER | |
| EMPLOYER NAME | PHONE |
| EMPLOYER'S ADDRESS | |
| IF PATIENT IS NOT RESPONSIBLE FOR THE BILL, PLEAS | SE INDICATE WHO IS RESPONSIBLE. |
| NAME | PHONE |
| ADDRESS | WF |
| RELATIONSHIP TO PATIENT Father | MANY PUANS |
| | WORK PHONE |
| SIGNATURE OF PATIENT OR LEGAL GUARDIAN_ | WORK PHONE |



GALLBLADDER ULTRASOUND: The gallbladder is well visuarized with no evidence of calculi, Common hepatic duct is of normal intraluminal dimension. Hepatic parenchyma, pancreas and right kidney are within normal limits.

CONCLUSION: 1. No abnormality note.

| DATE: -93 | Hat in back of B+ Heel & court in class |
|------------|---|
| 77: | at school in the way |
| BP: PULSE: | Small has to Heel are across tenders |

The pt. whose last tetanus shot is not known was at school today when she was hit in the back of the right heel by a shop cart suffering a superficial laceration about 1½ cm. in length horizontally over the back of the right heel. There is some associated contusion. Does not affect the achilles tendon and the has good ROM of the foot. Excellent pulses and intact sensation. The area has been scrubbed with betadine. Appears to be clean. Is covered with neosporin and bandaid which may be changed on a daily basis.

She is given a note stating she may return to school She is not in Phy. Ed. Sherisgiven.a Id adult injection. I suggested wearing socks but no shoes and sandles to avoid pressure over this area for the next week.

She should soak it in warm water twice a day for 15 minutes for the next 3 days. Should follow up prn if there are any signs or symptoms of infection.

| DATE 94 | MVA on 94- now 'b bock - (mid), meck & |
|---------------------------------------|--|
| HT: 60 VII: 1/2 = BP.119/86 PULSE: 68 | shoulders ache-hurt i deep breathing. |
| AMP ! (period started today) |) YLO LOC |

motor vehicle accident yesterday. She complains of back pain all along the spine, neck pain, whip lash, sprain to the left arm and right shoulder. She denies any fever, chills, anorexia, GI symptoms, significant bruising or lacerations. She denied any loss of consciousness.

PE: HEENT: TM's clear. Throat clear. PERLA. EOM's intact. Neck supple. No cervical adenopathy. Thyroid not enlarged. Lungs were clear. The heart had a regular rhythm. No murmurs or gallups. No rebound or guarding. There is no pain to percussion over the lumbosacral spine. She had full range of motion of the cervical spine and all extremities.

IMPRESSION: No pathology identified. Generalized muscle strain from previous MVA.

PLAN: Reassurance. Equagesic one tid for two to three days. Heat to painful areas and return Monday if there is no improvement for further diagnostic studies.

Appendix N:

NASS CDS OCCUPANT ASSESSMENT FORM:
VEHICLE #2 PASSENGER



OCCUPANT ASSESSMENT FORM

O.M.B. No. 2127-0021

U.S. Department of Transportation MATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM National Highway Traffic Safety dministration OCCUPANT'S SEATING 1. Primary Sampling Unit Number 10. Occupant's Seat Position 2. Case Number - Stratum Front Seat (11) Left side 3. Vehicle Number (12) Middle (13) Right side 4. Occupant Number (14) Other (specify): OCCUPANT'S CHARACTERISTICS (15) On or in the lap of another occupant Second Seat 5. Occupant's Age (21) Left side Code actual age at time of accident. (00) Less than one year old (specify by month): (22) Middle (23) Right side Internew (24) Other (specify):_ (97) 97 years and older (25) On or in the lap of another occupant (99) Unknown Third Seat (31) Left side (32) Middle 6. Occupant's Sex (33) Right side (1) Male (34) Other (specify):__ (2) Female (35) On or in the lap of another occupant (9) Unknown Fourth Seat (41) Left side (42) Middle 7. Occupant's Height (43) Right side Code actual height to the nearest (44) Other (specify): centimeter. (45) On or in the lap of another occupant (999) Unknown 57 inches X 2.54 = 145 centimeters (97) In or on unenclosed area (98) Other seat (specify):___ (99) Unknown 8. Occupant's Weight Code actual weight to the nearest 0 11. Occupant's Posture kilogram. (0) Normal posture (999)Unknown 90 pounds X .4536 = 4/ kilograms Abnormal posture (1) Kneeling or standing on seat (2) Lying on or across seat (3) Kneeling, standing or sitting in front of seat (4) Sitting sideways or turned to talk with another occupant or to look out a rear window 2 9. Occupant's Role (5) Sitting on a console (1) Driver (6) Lying back in a reclined seat position (2) Passenger (7) Bracing with feet or hands on a surface in front (9) Unknown of seat (8) Other abnormal posture (specify): (9) Unknown

| | EJEC | TION/EI | NTRAPMENT |
|-----|---|----------|--|
| 12. | Ejection (0) No ejection (1) Complete ejection (2) Partial ejection (3) Ejection, unknown degree (9) Unknown | _0 | 15. Medium Status (Immediately Prior To Impact) O (0) No ejection (1) Open (2) Closed (3) Integral structure (9) Unknown |
| 13. | Ejection Area (0) No ejection (1) Windshield (2) Left front (3) Right front (4) Left rear (5) Right rear (6) Rear (7) Roof (8) Other area (e.g., back of pickup, etc.) (specify): (9) Unknown | <u>o</u> | 16. Entrapment (NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.) (0) Not entrapped (1) Entrapped (9) Unknown |
| 14. | Ejection Medium (0) No ejection (1) Door/hatch/tailgate (2) Nonfixed roof structure (3) Fixed glazing (4) Nonfixed glazing (specify): | 0 | |
| | (5) Integral structure (8) Other medium (specify): (9) Unknown | | |
| - | | | |
| | | | |

| RESTRAINT SYST | EM EVALUATION |
|---|---|
| 17. Manual (Active) Belt System Availability (0) None available (1) Belt removed/destroyed (2) Shoulder belt (3) Lap belt (4) Lap and shoulder belt (5) Belt available—type unknown | 21. Air Bag System Availability/Function (O) Not equipped/not available (1) Air bag Non-functional (2) Air bag disconnected (specify): (3) Air bag not reinstalled |
| Integral Belt Partially Destroyed (6) Shoulder belt (lap belt destroyed/removed) (7) Lap belt (shoulder belt destroyed/removed) (8) Other belt (specify): (9) Unknown 18. Manual (Active) Belt System Use (00) None used, not available, or belt removed/destroyed (01) Inoperative (specify): (02) Shoulder belt (03) Lap belt (04) Lap and shoulder belt (05) Belt used—type unknown | (9) Unknown 22. Air Bag System Deployment (0) Not equipped/not available (1) Air bag deployed during accident (as a result of impact) (2) Air bag deployed inadvertently just prior to accident (3) Air bag deployed, accident sequence undetermined (4) Nondeployed (5) Unknown if deployed (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical) |
| (08) Other belt used (specify): (12) Shoulder belt used with child safety seat (13) Lap belt used with child safety seat (14) Lap and shoulder belt used with child safety seat (15) Belt used with child safety seat—type unknown (18) Other belt used with child safety seat (specify): (99) Unknown if belt used 19. Proper Use of Manual (Active) Belts (0) None used or not available (1) Belt used properly (2) Belt used properly with child safety seat | (9) Unknown 23. Are There Indications of Air Bag System Failure? (0) Not equipped/not available (1) No (2) Yes (specify): (9) Unknown Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts |
| Belt Used Improperly (3) Shoulder belt worn under arm (4) Shoulder belt worn behind back or seat (5) Belt worn around more than one person (6) Lap belt worn on abdomen (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): (8) Other improper use of manual belt system (specify): (9) Unknown | 24. Police Reported Restraint Use (0) None used (1) Police did not indicate restraint use (2) Shoulder belt (3) Lap belt (4) Lap and shoulder belt (5) Belt used, type not specified (6) Child safety seat (7) Other or automatic restraint (specify): (8) Restrained, type unknown (9) Police indicated "unknown" |
| 20. Manual (Active) Belt Failure Modes During Accident (0) No manual belt used (1) No manual belt failure(s) (2) Torn webbing (stretched webbing not included) (3) Broken buckle or latchplate (4) Upper anchorage separated (5) Other anchorage separated (specify): (6) Broken retractor (7) Combination of above (specify): (8) Other manual belt failure (specify): | |

| | | HEAD RESTRAINT AN | SEAT EVALUATION |
|-----|--|--|---|
| 25. | at Ti (0) (1) (2) (3) (4) (5) (6) | d Restraint Type/Damage by Occupant his Occupant Position No head restraints Integral—no damage Integral—damaged during accident Adjustable—no damage Adjustable—damaged during accident Add-on—no damage Add-on—damaged during accident Other (specify): | 27. Seat Performance (this Occupant Position) (0) Occupant not seated or no seat (1) No seat performance failure(s) (2) Seat adjusters failed (3) Seat back folding locks or "seat back" failed (specify): (4) Seat track/anchors failed (5) Deformed by impact of occupant (6) Deformed by passenger compartment intrusion (specify): |
| | (9) | Unknown | (7) Combination of above (specify): |
| | | 2 2 | (8) Other (specify): |
| 26. | (00) (01) (02) (03) (04) (05) (06) (07) (08) (09) | Type (this Occupant Position) Occupant not seated or no seat Bucket Bucket with folding back Bench Bench with separate back cushions Bench with folding back(s) Split bench with separate back cushions Split bench with folding back(s) Pedestal (i.e., column supported) Other seat type (specify): Box mounted seat (i.e., van type) Unknown | (9) Unknown |
| | | | |
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| (000) No child safety seat Applicable codes are found in your NASS CDS Data Collection, Coding and Editing (950) Built-in child safety seat (997) Other make/model (specify): 32. Child Safety Seat Shield Usage 33. Child Safety Seat Tether Usage | | С | HILD SAI | ETY SEAT | • |
|---|---|---|----------|--|---|
| (997) Other make/model (specify): 33. Child Safety Seat Tether Usage | | (000) No child safety seat Applicable codes are found in your NASS Data Collection, Coding and Editing | | | |
| (999) Unknown if child safety seat used Note: Options below applicable to Variables OA31-OA33. (00) No child safety seat | (| 997) Other make/model (specify): 998) Unknown make/model | - | Note: Options below ap Variables OA31-OA33. | plicable to |
| 29. Type of Child Safety Seat (0) No child safety seat (1) Infant seat (2) Toddler seat (3) Convertible seat (4) Booster seat (7) Other type child safety seat (specify): (8) Unknown child safety seat used (9) Unknown if child safety seat used (11) After market harness/shield/tether used (12) After market harness/shield/tether used (13) Child safety seat used, but no after market harness/shield/tether added (14) Unknown if harness/shield/tether added (15) Unknown if child safety seat used (16) Unknown if harness/shield/tether (17) Unknown if child safety seat used (18) Unknown if child safety seat used (19) Unknown if harness/shield/tether (11) Harness/shield/tether used | | O) No child safety seat 1) Infant seat 2) Toddler seat 3) Convertible seat 4) Booster seat 7) Other type child safety seat (specify): (8) Unknown child safety seat type | , | (01) After market harn added, not used (02) After market harn (03) Child safety seat harness/shield/tet (09) Unknown if harne added or used Designed With Harness (11) Harness/shield/tet (12) Harness/shield/tet | ess/shield/tether ess/shield/tether used used, but no after market her added ss/shield/tether //Shield/Tether ther not used ther used |
| 30. Child Safety Seat Orientation (00) No child safety seat Designed for Rear Facing for This Age/Weight (01) Rear facing (02) Forward facing (08) Other orientation Designed For Forward Facing for This Age/Weight (11) Rear facing (12) Forward facing (13) Unknown if harness/shield/tether used (29) Unknown if harness/shield/tether used (29) Unknown if harness/shield/tether used (29) Unknown if child safety seat used (99) Unknown if child safety seat used Unknown if child safety seat used (29) Unknown if child safety seat used (29) Unknown if child safety seat used | | Designed for Rear Facing for This Age/We (01) Rear facing (02) Forward facing (08) Other orientation (specify): (09) Unknown orientation Designed For Forward Facing for This Age (11) Rear facing (12) Forward facing (18) Other orientation (specify): (19) Unknown orientation Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight (21) Rear facing (22) Forward facing (28) Other orientation (specify): | eight | (19) Unknown if harne Unknown If Designed V (21) Harness/shield/tet (22) Harness/shield/tet (29) Unknown if harne | ss/shield/tether used With Harness/Shield/Tether ther not used ther used ss/shield/tether used |

| | INJURY CONSEQUENCES | 38. Working Days Lost |
|-----|---|---|
| 34. | Injury Severity (Police Rating) O - No injury C - Possible injury B - Nonincapacitating injury A - Incapacitating injury K - Killed U - Injury, severity unknown Died prior to accident Unknown | Code the number of days (up through 60) that the occupant lost from work due to the accident (00) No working days lost (61) 61 days or more (62) Fatally injured (97) Not working prior to accident (99) Unknown STOP - GO TO VARIABLE 44 ON PAGE 7 |
| | Treatment - Mortality (0) No treatment (1) Fatal (2) Fatal - ruled disease (specify): Nonfatal (3) Hospitalization (4) Transported and released (5) Treatment at scene - nontransported (6) Treatment later (8) Treatment - other (specify): (9) Unknown | ARIABLES 39 THROUGH 43 ARE COMPLETED BY THE ZONE CENTER 39. Time to Death Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, n days = 30 +n up through 30 days = 60) (00) Not fatal (96) Fatal - ruled disease (99) Unknown |
| | Type Of Medical Facility (for Initial Treatment) (0) Not treated at a medical facility (1) Trauma center (2) Hospital (3) Medical clinic (4) Physician's office (5) Treatment later at medical facility (8) Other (specify): (9) Unknown Hospital Stay (00) Not Hospitalized Code the number of days (up through 60) | 41. 2nd Medically Reported Cause of Death 42. 3rd Medically Reported Cause of Death Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death (00) Not fatal or no additional causes (96) Mode of death given but specific injuries are not linked to cause of death. (specify): (97) Other result (includes fatal ruled disease) (specify): |
| - | that the occupant stayed in hospital. (61) 61 days or more (99) Unknown | (99) Unknown 43. Number of Recorded Injuries for This Occupant Code the actual number of injuries recorded for this occupant. (00) No recorded injuries (97) Injured, details unknown (99) Unknown if injured |

| | AUTOMATIC BELT SYSTEM | | 48. | Automatic (Passive) Belt Failure Modes | | | | | |
|--|---|-----|-----|---|--|--|--|--|--|
| F: (C) (1 | utomatic (Passive) Belt System Availability/ unction Not equipped/not available 2 point automatic belts 3 point automatic belts Automatic belts - type unknown | 0 | 40. | During Accident (0) Not equipped/not available/not in use (1) No automatic belt failure(s) (2) Torn webbing (stretched webbing not included) (3) Broken buckle or latchplate (4) Upper anchorage separated (5) Other anchorage separated (specify): | | | | | |
| (4 | on-functional Automatic belts destroyed or rendered inoperative Unknown | , | | (6) Broken retractor (7) Combination of above (specify): (8) Other automatic belt failure (specify): (9) Unknown | | | | | |
| 45. A | utomatic (Passive) Belt System Use | _0 | | (5, 5) | | | | | |
| (1 (2 | (0) Not equipped/not available/destroyed or rendered inoperative (1) Automatic belt in use (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify): (3) Automatic belt use unknown | × | 49. | Seat Orientation (this Occupant Position) (0) Occupant not seated or no seat (1) Forward facing seat (2) Rear facing seat (3) Side facing seat (inward) (4) Side facing seat (outward) | | | | | |
| |) Unknown | | | (8) Other (specify): (9) Unknown | | | | | |
| (1 | automatic (Passive) Belt System Type)) Not equipped/not available)) Non-motorized system 2) Motorized system | 0 | | (5) Olikilowii | | | | | |
| (8 | 3) Unknown | | | Check the Primary Source Used In Determining Belt Use. | | | | | |
| A (3 (4 (5) (6) (7) | roper Use of Automatic (Passive) elt System)) Not equipped/not available/not used 1) Automatic belt used properly 2) Automatic belt used properly with child safety seat **Lutomatic Belt Used Improperly 3) Automatic shoulder belt worn under arm 4) Automatic shoulder belt worn behind back 5) Automatic belt worn around more than one person 6) Lap portion of automatic belt worn on abdomen 7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): 8) Other improper use of automatic belt syste (specify): 9) Unknown | | | [] Not equipped/not available/destroyed of rendered inoperative [Vehicle inspection [] Official injury data [] Driver/occupant interview [] Other (specify): [] Unknown if belt used | | | | | |
| ARE ALL APPLICABLE MEDICAL RECORDS INCLUDED NO [] YES []/ | | | | | | | | | |
| | UPDATE CANDIDA | TE? | | NO IV YES [] | | | | | |

| | ON WARRANCES ENTURNISH EX | ADE | | | BELT USE DETERMINATION | |
|-----|---|---------|-----|-------------------|---|---|
| Š | OP - VARIABLES 50 THROUGH 53: MPLETED BY THE ZONE CENTER | ANE | 53. | (0) | nary Source of Belt Use Determination Not equipped/not available/destroyed or rendered inoperative Vehicle inspection | |
| | TRAUMA DATA | | | (1) (2) | Official injury data | 1 |
| 50. | Glasgow Coma Scale (GCS) Score (at Medical Facility) (00) Not injured (01) Injured - not treated at medical facility (02) No GCS Score at medical facility (03-15) Code the actual value of the initial GCS Score recorded at medical facility. (97) Injured, details unknown (99) Unknown if injured | | | (3) (8) (9) | Driver/occupant interview Other (specify): | |
| 51. | Was the Occupant Given Blood? (1) No - blood not given (2) Yes - blood given (specify units): (9) Unknown if blood given | <u></u> | | | | |
| 52. | Arterial Blood Gases (ABG) - HCO ₃ (00) Not injured (01) Injured, ABGs not measured or report (02-50) Code the actual value of theHCO ₃ (96) ABGs reported, HCO ₃ unknown (97) Injured, details unknown (99) Unknown if injured | O O | | | | |
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TRANSPORTATION RESEARCH CENTER



ON-SITE AIR BAG FIRE INVESTIGATION

SELECTED PHOTOGRAPHS

CASE NO. - 94-16
FLEET - PRIVATE VEHICLE
LOCATION - Wisconsin
ACCIDENT DATE - 1994

A total of seventy-eight color copies of photographs are presented and referenced as Photograph #01 through Photograph #78. All of these photographs were taken by the Transportation Research Center.

1994

Contract Number:

Prepared for:

U.S. Department of Transportation National Highway Traffic Safety Administration National Center for Statistics and Analysis Washington, D.C. 20590



01 -- 1995 Plymouth Neon's southward downhill travel path approximately 65 meters north of intersection



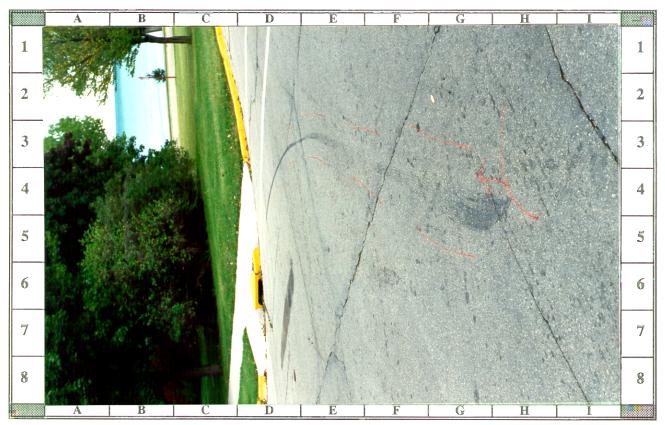
02 -- 1995 Plymouth Neon's southward downhill travel path approximately 25 meters north of intersection



03 -- 1995 Plymouth Neon's southward downhill travel path just prior to intersection; NOTE: south leg angles south-southeast



04 -- 1995 Plymouth Neon's south-southeastward downhill travel path ~ five meters north of initial impact with 1986 Dodge Omni



05 -- 1995 Plymouth Neon's southeastward, post-impact, travel path to spill (cells D6--D7) at final rest; NOTE: Omni's RF scuff



06 -- Close-up of 1995 Plymouth Neon's radiator spill at area of final rest--looking northeast



07 -- Northward view of 1995 Plymouth Neon's southward path of travel from area of impact; NOTE: approach slope is approximately 4.7%



08 -- 1986 Dodge Omni's eastward downhill travel path approximately 65 meters west of intersection



09 -- 1986 Dodge Omni's eastward downhill travel path approximately 25 meters west of intersection



10 -- 1986 Dodge Omni's eastward downhill travel path approximately 5 meters west of intersection



11 -- 1986 Dodge Omni's right front deflection/scuff mark post-impact looking east-southeast; NOTE: 1995 Neon's spill (cells D4-E4)



12 -- Close-up of 1986 Dodge Omni's right front deflection point & SE post-impact travel path; NOTE: 1995 Neon's spill (cells B3--D3)



13 -- Close-up of 1986 Dodge Omni's right front scuff mark & southeast post-impact travel path; NOTE: 1995 Neon's spill (cells B2--C3)



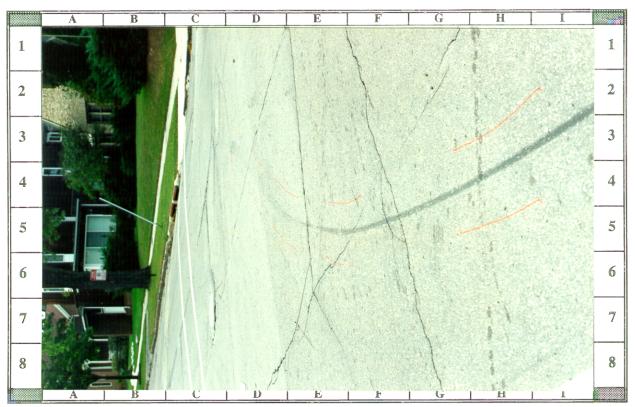
14 -- Close-up of end of 1986 Dodge Omni's right front scuff mark near final rest--looking east-southeast



15 -- Close-up of amber turn signal debris most likely from 1995 Plymouth Neon--looking north-northeast; NOTE: spurious tire marks



16 -- Westward view of 1986 Dodge Omni's eastward path of travel from area of final rest; NOTE: approach slope is approximately 9.0%



17 -- West-northwest view of 1986 Dodge Omni's right front scuff mark & southeast path from point of deflection (cell D3) toward rest



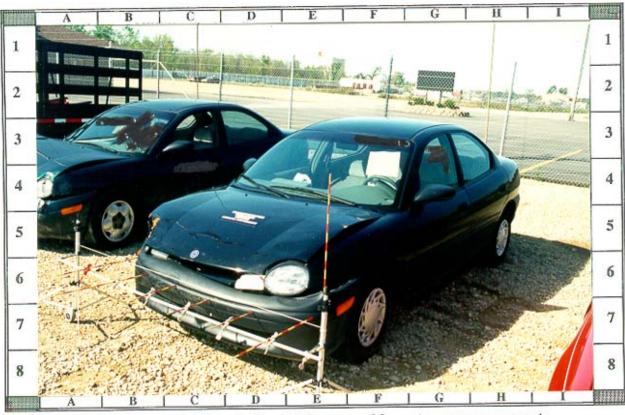
18 -- 1995 Plymouth Neon's frontal damage with contour guage present; viewed from front



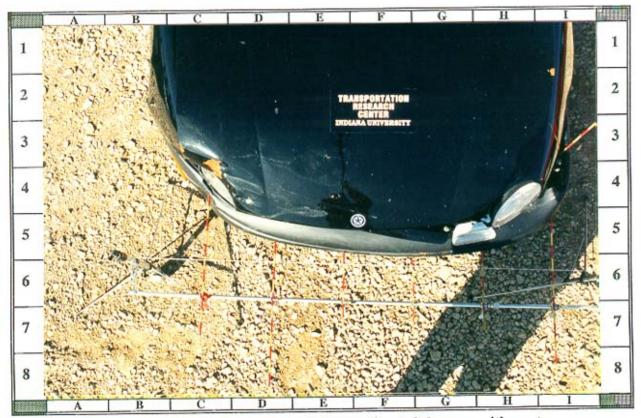
19 -- Close-up of direct damage to '95 Plymouth Neon's front bumper, hood, and right headlight assembly



20 -- Closer-up of end of direct damage to 1995 Plymouth Neon's front bumper; NOTE: induced damage to left headlight assembly



21 -- 1995 Plymouth Neon's frontal damage with contour guage present; viewed from front left



22 -- Overhead view of '95 Plymouth Neon's frontal damage with contour guage present; viewed from front



23 -- 1995 Plymouth Neon's frontal damage with contour guage present; viewed across front from left; NOTE: induced damage to hood



24 -- 1995 Plymouth Neon's left side viewed along left side from front; NOTE: induced damage to left headlight assembly



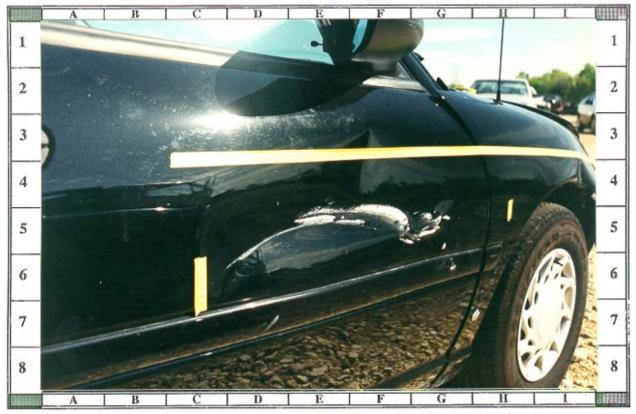
25 -- 1995 Plymouth Neon's undamaged left side and rear viewed from left rear



26 -- 1995 Plymouth Neon's undamaged rear & damaged right side viewed from rear right



27 -- 1995 Plymouth Neon's right side showing sideslap damage to right front fender, door, and outside rearview mirror



28 -- Close-up of sideslap damage to 1995 Plymouth Neon's right front door viewed from right rear



29 -- Close-up of sideslap damage to 1995 Plymouth Neon's right front door and rearview mirror (cells B1--C1) viewed from right front



30 -- Closer-up of sideslap damage to 1995 Plymouth Neon's right outside rearview mirror viewed from right



31 -- 1995 Plymouth Neon's frontal damage with contour guage present; viewed across front from right; NOTE: snag at RF bumper corner



32 -- 1995 Plymouth Neon's right side viewed along right side from front; NOTE: damage to right headlight assembly and bumper snag



33 -- Close-up of 1995 Plymouth Neon's damaged front right corner area viewed from front right; NOTE: maximum crush at bumper snag



34 -- 1995 Plymouth Neon's left front interior door surface and driver seating area with deployed air bags; NOTE: burn to RF air bag



35 -- 1995 Plymouth Neon's left dash, lower steering wheel rim, toe pan, and steering column; NOTE: no evidence of driver contact



36 -- 1995 Plymouth Neon's driver side air bag, left A-pillar, forward L door surface, & center dash; NOTE: no contact evidence



37 -- 1995 Plymouth Neon's lower steering wheel, mid & R dash, windshield, & rearview mirror; NOTE: no contacts & radio removed



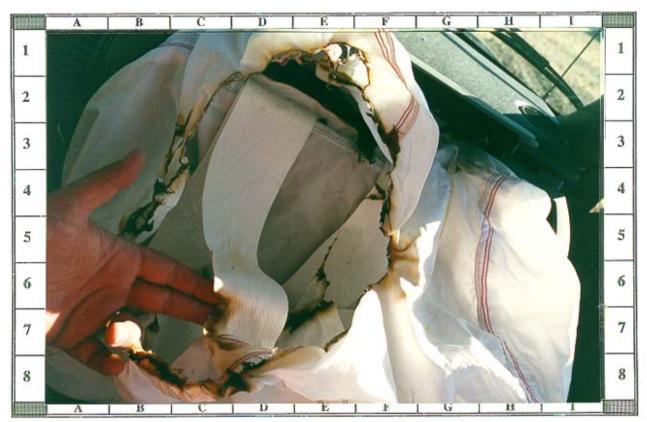
38 -- 1995 Plymouth Neon's middle and right dash and right toepan area viewed from right front door; NOTE: no contact evidence/radio



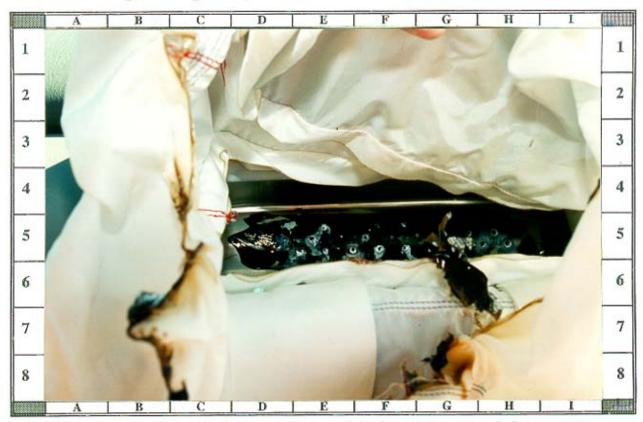
39 -- 1995 Plymouth Neon's right front passenger air bag showing large burn hole in air bag



40 -- Close-up of 1995 Plymouth Neon's burned right front passenger air bag; NOTE: hole diameter is approximately 33 cm (13.0 in)



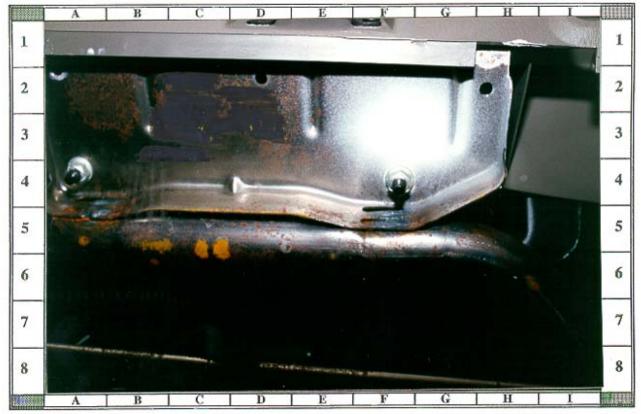
41 -- Close-up of burn mark on 1995 Plymouth Neon's right front passenger air bag tether; NOTE: burn marks around hole's periphery



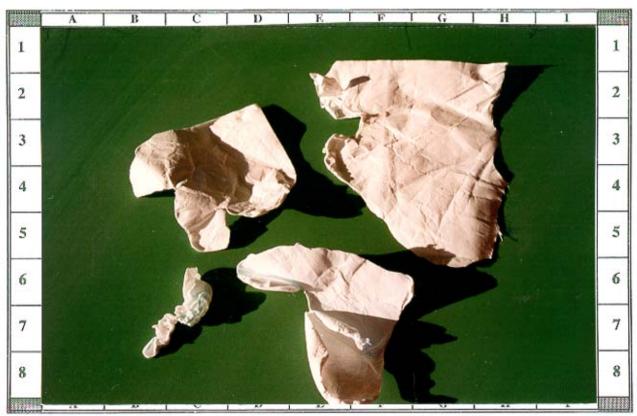
42 -- Close-up of 1995 Plymouth Neon's right front passenger air bag inflator assembly; NOTE: melted bag material around inflator



43 -- Close-up of 1995 Plymouth Neon's RF passenger air bag inflator assembly; NOTE: singed paper-like material next to inflator



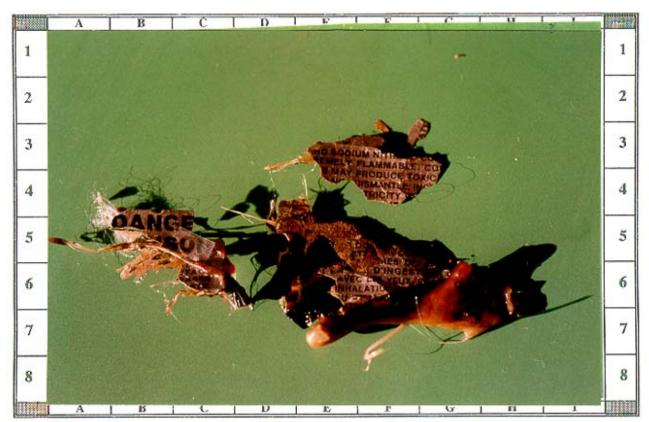
44 -- Close-up of 1995 Plymouth Neon's right front passenger air bag Reaction Can taken from underneath right front dash



45 -- Close-up of singed paper-like material found inside '95 Plymouth Neon's RF passenger air bag; see photo #43 above--cells B3--D5



46 -- Closer-up of singed paper-like material found inside 1995 Plymouth Neon's right front passenger air bag; NOTE: bluish tinge



47 -- Close-up of warning label attached to melted material found inside 1995 Plymouth Neon's RF air bag; see photo #42 cells F5--G5



48 -- Closer-up view of left-half of warning label attached to melted material found inside 1995 Plymouth Neon's right front air bag



49 -- Closer-up view of right-half of warning label attached to melted material found inside 1995 Plymouth Neon's right front air bag



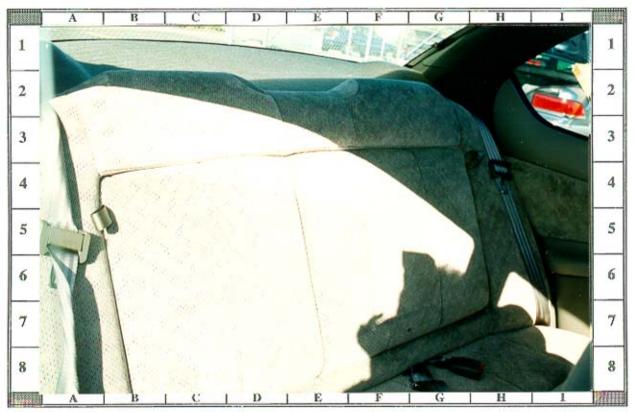
50 - 1995 Plymouth Neon's right front interior door surface & driver seating area with deployed air bags; NOTE: burn to RF air bag



51 -- Undamaged deployed right front passenger air bag found in an exemplar 1995 Plymouth Neon which was located in same salvage yard



52 -- Interior view of 1995 Plymouth Neon's front seatbacks and active three-point restraints for driver and right front passenger



53 -- Interior view of 1995 Plymouth Neon's rear seatbacks and active three-point restraints for rear outboard passengers



54 -- 1986 Dodge Omni's undamaged front viewed from front; NOTE: engine, hood, and both front wheels have been removed



55 -- 1986 Dodge Omni's left front direct damage with contour guage present viewed from left front; NOTE: engine removed



56 -- 1986 Dodge Omni's left front direct damage with contour guage present viewed from left; NOTE: front tires removed



57 -- Close-up of 1986 Dodge Omni's left front damage at area of maximum crush (red clamp); NOTE: wheels gone and snagging near door



58 -- 1986 Dodge Omni's left front damage with contour guage present viewed from left rear; NOTE: outside rearview mirror is intact



59 -- 1986 Dodge Omni's sideslap damage to left rear door and quarter panel viewed from left front



60 -- 1986 Dodge Omni's sideslap damage to left rear door and quarter panel viewed from left rear



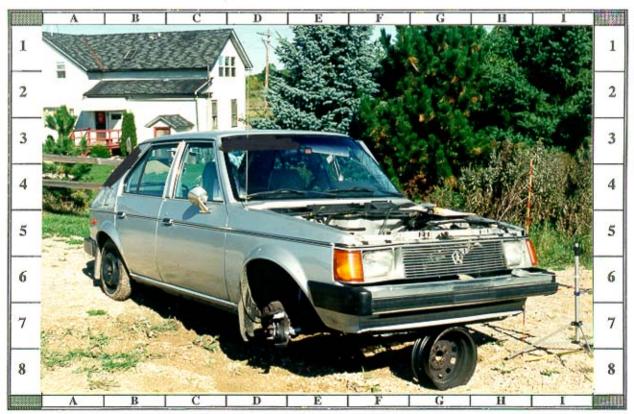
61 -- Close-up of 1986 Dodge Omni's sideslap damage viewed from left rear; NOTE: scuff (cells F2--G2) from Neon's R rearview mirror



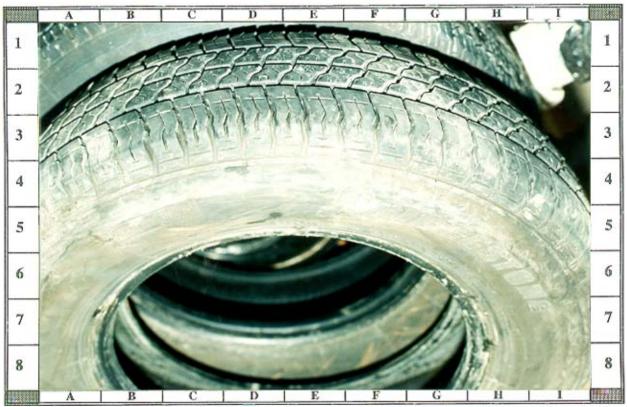
62 -- 1986 Dodge Omni's damaged left side & undamaged rear viewed from rear left; NOTE: rear tires replaced with temporary spare tires



63 - 1986 Dodge Omni's undamaged rear viewed from rear



64 -- 1986 Dodge Omni's undamaged front and right side viewed from front right; NOTE: RF tire, hood, & engine have been removed



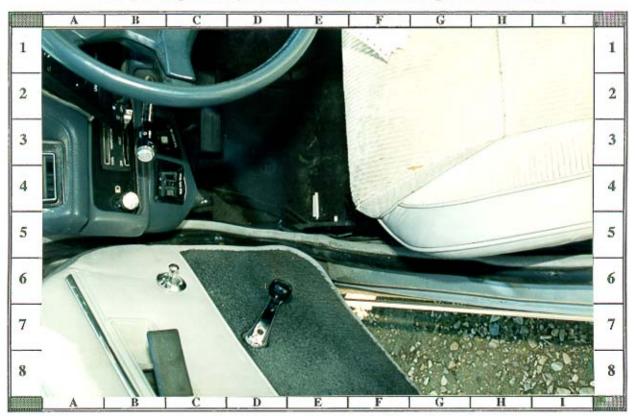
65 -- Close-up of 1986 Dodge Omni's removed right front tire showing post-impact scuffing marks resulting from impact with 1995 Neon



66 -- 1986 Dodge Omni's left front interior door surface and driver seating area; NOTE: no evidence of driver contact



67 -- Close-up of 1986 Dodge Omni's driver steering assembly, left dash, & toepan area; NOTE: induced dash damage from intrusion



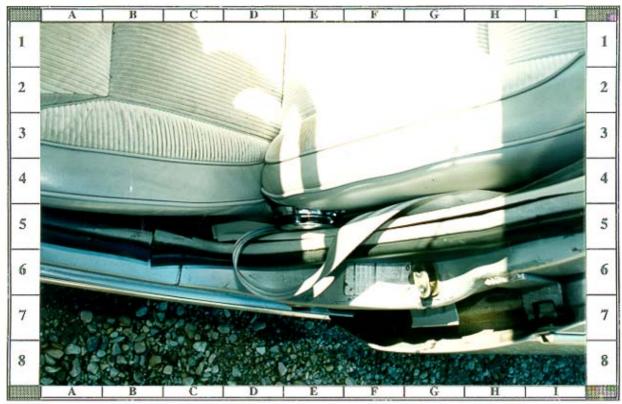
68 -- Overhead view of 1986 Dodge Omni's left door sill and dash deformed by intrusion--viewed from left front door area



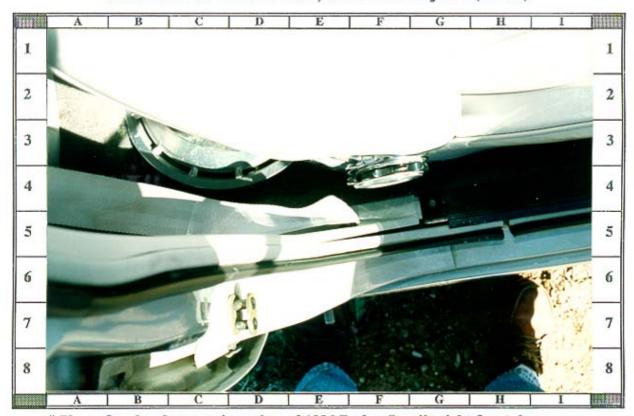
69 -- Close-up of 1986 Dodge Omni's left kickpanel & door sill damaged by intrusion--viewed from right front seating area



70 -- Close-up of 1986 Dodge Omni's intrusion damage to left A-pillar; NOTE: stress fracture to L windshield & no contact evidence



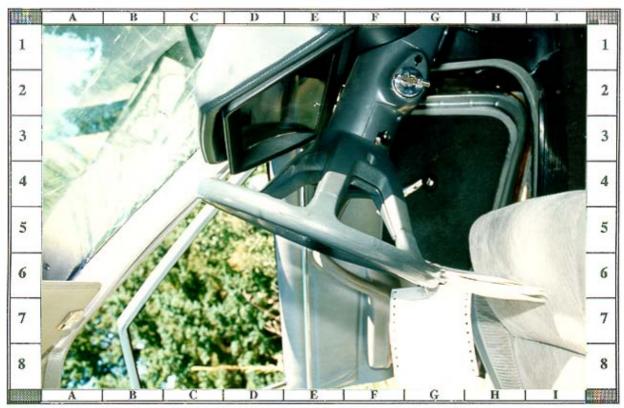
71 -- Overhead view of 1986 Dodge Omni's intrusion to left front door sill & movement of driver's seat; NOTE: seat adjuster (cell E5)



72 -- Overhead comparison view of 1986 Dodge Omni's right front door sill & seat adjuster (cells F3--G4) viewed from right front door



73 -- 1986 Dodge Omni's steering wheel, left interior door surface, and dash viewed from rear center; NOTE; no contact evidence



74 -- 1986 Dodge Omni's undeformed steering wheel viewed from right front seating area



75 - 1986 Dodge Omni's undamaged center and right dash, toepan, and windshield, and lower right A-pillar viewed from rear center



76 -- 1986 Dodge Omni's undamaged dash & steering assembly viewed from right front door; NOTE: radio has been removed



77 -- 1986 Dodge Omni's front seatbacks viewed from right rear door area; NOTE: rear seat back was folded down



78 -- 1986 Dodge Omni's rear active restraints underneath folded down rear seatback